



A Weekly Journal of Pharmacy and the Drug-trade.

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Verbum Sapienti.

It is wise for business houses to arrange for their announcements in *The Chemists' and Druggists' Diary* for 1906, as the *Diary* has to be despatched to Colonial buyers, so that they may get it before 1906. Our experience is that it pays to consider Colonial customers. They rank among the best buyers in the world, and C. & D. Colonial subscribers are notable, like those in other parts of the world and at home, for responding to advertisements. The Publisher is now booking orders, and business-houses should send their instructions to him as early as possible, so that their announcements may be effectively set and placed.

Known, Admitted, and Approved Remedies.

THE Board of Inland Revenue on July 20, 1903, informed us that the fact that an article is prepared in accordance with a formula which has appeared in "The Chemists' and Druggists' Diary," and that a statement to that effect is made on the label, will be accepted as evidence that the preparation falls within the category of "known, admitted, and approved" remedies, unless the original vendor made it dutiable.

We shall reserve some space in the 1906 *Diary* for such formulæ, which should be sent without delay to the Editor, 42 Cannon Street, London, E.C. Subscribers who desire to know the numbers of their formulæ before the *Diary* is published should send a stamped and addressed envelope for the purpose.

Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

THE BRITISH OPTICAL ASSOCIATION is prepared to bring forward its Optical Bill again (p. 543).

THE ELECTRICAL EXHIBITION, which was opened in London this week, is briefly reported in the Coloured Supplement.

HORSERADISH-ROOT has not been histologically depicted before as it is now done by Mr. W. A. Knight in a paper printed on p. 546.

THE BAD CONDITION of pharmacy in Russia is attributed by the leading newspaper to the best pharmacies being owned by speculators (p. 533).

"THE CHEMISTS' INN" was the shortest reply to last week's pictorial conundrum, otherwise "The Pestle and Mortar." Another is given on p. 540.

A SOUTH AFRICAN doctor suggests that natives should be trained as assistants to doctors, and given the name "dispensers." Is this right? (p. 545).

THE AGRICULTURAL NOTES, which are printed on p. 535 refer to the most recent publications of the Board of Agriculture, and deserve the attention of country chemists.

THE series of articles on "Stereochemistry," by Dr. W. W. Taylor, is completed in this issue, and questions are set, for replies to which we offer two book prizes (p. 528).

THE proposed amendment of the Transvaal Medical and Pharmacy Ordinance in respect to the sale of certain poisons by storekeepers had not been carried when the last mail left (p. 534).

THE "GUTZEIT" ARSENIC-TEST is a bother to most people because the apparatus required is so complicated. Messrs. C. A. Hill and H. Collins contribute a description and drawing of theirs, which are printed on p. 548.

TWO "BROWNE" FILM cases came before the Vacation Court this week, when one defendant consented to a perpetual injunction; and the other application was postponed, Mr. Rees, the defendant, "showing fight" (p. 549).

THE Chemists' and Druggists' Society of Ireland have obtained premises of their own in Belfast, where they can hold meetings, and where assistants may meet or study in the evenings. They are described and illustrated on p. 537.

THE PHARMACEUTICAL SOCIETY held a meeting at Cambridge last week. The local chemists gave a luncheon to the visitors. Mr. Campkin, the Mayor, presided over and spoke at the meeting, and he was followed by Mr. S. R. Atkins and others. Afterwards the Mayor entertained the party to tea (p. 537).

THE reports of the Local Government Boards of Scotland and Ireland have been published this week. We comment upon the adulteration statistics given in the former, and the supply of medicines to Irish workhouses and dispensaries, with special reference to the quality of the goods (p. 544).

"MAGNESIA," in the popular acceptance of the term, has since the middle of the eighteenth century been carbonate of magnesia. So Mr. Glyn-Jones in his barristerial capacity convinced the Wantage magistrates, who, therefore, dismissed a summons under the Sale of Food and Drugs Acts against a local firm of chemists (p. 549).

DR. ASTBURY'S PILLS have been the subject of an application by the maker to the Judge of a County Court, asking for an injunction to restrain another dealer from infringement. The County Court Judge was, if we may infer from his remarks, familiar with Lord Ardwall's views on proprietary medicines. The hearing is fully reported on p. 550.

INTEREST this week has centred in menthol and peppermint oil, both of which are dearer owing to speculation. German refined camphor has advanced. Citric and tartaric acids and castor oil are easier. Antimony is lower. Turpentine oil, linseed oil, and areca are higher. Strychnine may advance. Considerable supplies of first and second hand drugs were brought to auction to-day (p. 557).

THE WIDOWS' CLAUSE is discussed in this week's article on "Future Pharmacy Legislation." There we show that the object of Section 16 was to secure the qualified management of the business of any deceased chemist, this being distinct from the provision of Section 15, which requires each vendor of poisons to be qualified. It follows that the demand for qualified directors is the logical extension of the provision in the Widows' Clause, which, however, has not been enforced so fully as it might have been (p. 542).

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

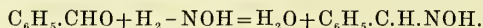
All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

Stereochemistry.

By W. W. TAYLOR, M.A., D.Sc.

Position Isomerism of Nitrogen Compounds.

BENZALDEHYDE interacts with hydroxylamine with the formation of benzaldoxime



This occurs in two forms, which were first thought to be two structurally different substances, but are known to be identical in structure and stereoisomeric. The one form in which the $-\text{OH}$ of the oxime group and the $-\text{H}$ of the aldehyde group are on the same side is denoted as benz-synaldoxime, and the other form as benz-antialdoxime, the two configurations being



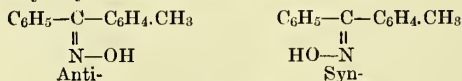
According to these configurations, the syn-aldoximes should lose H_2O readily with formation of the nitrile, but the anti forms not; this is the case especially with certain derivatives of the oximes, as the acetates.

The stability of the two forms is often widely different, and depends in a remarkable way upon the nature of the group (R) attached to the C atom—e.g., in the fatty series ($\text{R}=\text{CH}_3$, etc.)—the *syn* form is extremely stable, the *anti* form very unstable, so that some of them occur practically only in the one form, while in the aromatic series ($\text{R}=\text{C}_6\text{H}_5$, $\text{C}_6\text{H}_4\text{Cl}$, etc.) it is the *anti* form which is the more stable. The configuration of those which exist only in the one form can often be determined by comparison of its properties with those of oximes which are known in both forms. Thus acetaldoxime, $\text{CH}_3\cdot\text{CH}\cdot\text{NOH}$, a syn-aldoxime, is like benz-synaldoxime, and easily forms a nitrile by loss of H_2O .

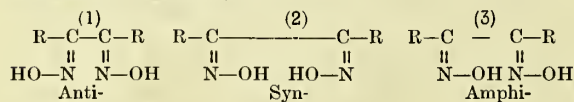
Aldehyde-acids also give rise to position isomerism, ketones do so only if they are unsymmetrical in structure—e.g., acetone (dimethyl ketone) gives only one oxime, the *syn* and *anti* configurations being identical:



but phenyltolyl ketone forms both:



The configuration of ketoximes is more difficult to make out than that of aldoximes owing to the absence of $-\text{H}$ attached to the C atom. Mention may be made of the dioximes formed from diketones, for the first example of position isomerism of nitrogen compounds was a symmetrical dioxime—benzildioxime. There are three isomers in the case of a symmetrical dioxime



and all three benzildioximes are known,

Change of Configuration of Oximes.

Just as position-isomers of the ethylene series undergo rearrangement into the other form, by the action of heat or of catalytic agents, so do the oximes, but owing to the greater differences in stability of the two forms the rearrangement in the oximes is more easily brought about, in one direction at least. Mention has been already made of the influence of the group attached to the C atom on the relative stability of the two forms; it is obvious that changes in that group may effect change of configuration too. Finally, position isomerism has been observed to exist in the case of other nitrogen compounds—the hydrazones, of which the type is $\text{Cab}=\text{N}\cdot\text{NH}\cdot\text{C}_6\text{H}_5$. They are analogous in every respect with the stereoisomeric oximes.

Stereochemistry of other Elements.

In recent years attempts to prepare optically active, asymmetrical compounds of elements other than carbon and nitrogen have proved successful, and optically active compounds of tin, lead, and sulphur have been obtained. Except in difficulty of preparation and of resolution they differ in no especial feature from asymmetric carbon compounds, but they do afford striking evidence of the connection between molecular asymmetry and optical activity.

It is hardly necessary to say, in concluding this series of articles, that many things of interest and importance have been left untouched because the attempt has not been made to cover the whole ground, but to present the fundamentals of the subject in such a way as might, it is hoped, enable the student to proceed further with the subject, the importance of which he should now be in a position to realise.

PRIZE COMPETITION.

In connection with this series of articles we now have pleasure in offering prizes of books for the best sets of answers to the questions given below. The competition is open to all students of pharmacy, but competitors will be divided into two sections—"qualified" and "unqualified." To each section we offer suitable awards, each consisting of books to the value of half a guinea. Students' papers must be sent in to the Editor, at 42 Cannon Street, London, E.C., not later than Tuesday, October 24, and they must bear the names and addresses of the writers, although not necessarily for publication. Clear indication must be given in each case as to whether the writer has or has not passed a qualifying pharmaceutical examination. The following are the

QUESTIONS ON STEREOCHEMISTRY.

1. What is meant by "molecular asymmetry"? Give three examples. State briefly what relations have been established between molecular asymmetry and optical activity.
2. How many tartaric acids are there? Mention the main points of difference between them.
3. Explain why synthetic lactic acid is optically inactive. Describe two methods of obtaining *d* lactic acid from it.
4. What is meant by the "configuration" of a compound? Give what evidence you can for the configurations of (a) meso-tartaric acid, (b) maleic acid, (c) succinic acid, (d) acetaldoxime.
5. What is formed when
 - (a) Tartaric acid is heated with water.
 - (b) Maleic acid is heated.
 - (c) Bromine acts upon acetylene-dicarboxylic acid.
 - (d) Bromine acts upon crotonylene?

THE exports of chemical products from Belgium to Canada were 1,613 tons in 1904, or an increase of 1,297 tons on the previous year; and of drugs 376 tons were exported, or an increase of 72 tons. Belgium imported 1,262 tons of chemicals from Canada last year, against 494 tons in 1903.

THE Belgian exports to Australia last year included 720 tons of chemicals, a decrease of 381 tons, as compared with the previous year; and of drugs 462 tons were exported, or an increase of 176 tons on the previous year. Australia sent Belgium 5 tons of drugs, or 19 tons less than in 1903.

English News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Brevities.

An East Teignmouth clergyman has been convicted of "obstructing the footpath" by propping his bicycle outside a chemist's shop. The footpath was stated to be 4 ft. 6 in. wide.

The Burnley Magistrates, on September 20, granted a permit to Mr. Albert Edward Hartley, chemist and druggist, to sell wine at 59 St. James's Street for consumption off the premises.

So serious is the subsidence of the Northwich Public Library, caused by the salt-mining operations in the district, that the local authorities have decided to condemn the building. Sir John Brunner, Bart., M.P., the donor of the institution, consulted with the council and agreed that the building is past repair, and will have to be demolished.

Owing to inefficient support the proposal, by a number of young pharmacists, to found the "Institute of Chemical Analysts" has been "temporarily shelved," but the members of the Provisional Committee have decided to form a "Society of Pharmaceutical Analysts," with similar objects to those of the Institute originally contemplated, only of a wider scope.

At a meeting of the Northwich (Cheshire) District Council on September 22, it was stated that the children were in the habit of eating chlorodyne lozenges, which had a large sale in the district, and extraordinary drowsiness on the part of the scholars resulted. It was decided to request the County Council to have analyses of the sweets made under the Sale of Food and Drugs Acts.

At a meeting of the Matlock District Improvements Association on September 25, a letter was read from Mr. Wm. Pilkington, pharmaceutical chemist, offering to officiate as the Matlock weather expert and to supervise the local installation in meteorological subjects. As Mr. A. E. Davis, chemist and druggist, had accepted the post, the offer was declined for twelve months.

Talbot Bridgewater (49), medical specialist, of Oxford Street, W.; Lionel Peyton Holmes, doctor's assistant, and a surveyor named Shackell, were remanded at Westminster on September 23 on charges of forgery and conspiracy. The prosecution is being undertaken by the Treasury, in consequence of information given by a convict, named Fisher, now undergoing a long term of penal servitude.

The second Saturday-afternoon outing of the season for the employés of Messrs. Evans Sons Lescher & Webb, Ltd., of 60 Bartholomew Close, E.C., was held at the White Hart Hotel, Harlington, on September 23. An excellent high tea was followed by a concert, and a most enjoyable time was spent. The chair was occupied by Mr. Charles Anderson, and the receipt of a telegram of good wishes from the directors was loudly cheered.

The Metropolitan Water Board at their meeting on September 22 made the following appointments: Senior chemical assistant, salary 300*l.* a year, Mr. R. B. Floris, Ealing, W.; junior chemical assistant, salary 175*l.* a year, Mr. D. B. Byles, Hampton Hill, Middlesex; senior bacteriological assistant, salary 300*l.* a year, Mr. D. G. Sutherland, Ealing, W.; junior bacteriological assistant, salary 175*l.* a year, Mr. J. I. Goodlet, Nunhead, S.E.

The annual British Homœopathic Congress concluded at Hastings on September 23. Dr. Giles F. Goldsbrough (London Homœopathic Hospital) presided over the meetings, which were held at the Town Hall. Papers were read by Dr. Goldsbrough, Dr. Ord (physician to the Bournemouth Hahnemann Hospital), and Mr. Clement J. Wilkinson (Windsor). Dr. E. A. Neatby (London) was elected President for the ensuing year, and Dr. MacNish (London) Vice-President.

Competition in pharmaceutical circles here (writes a correspondent from Southport) is pretty keen, and you may see in Lord Street (which is claimed as the finest boulevard in England) a Major man describing himself on his outside sign as "Druggist and Drysalter." An-

other Lord Street pharmacist, Mr. Henry Ball, makes a speciality of the x-rays, and is at present exhibiting in his window a remarkable x-rays photograph (taken on the premises) showing a coin in a child's gullet.

George Vaughan, of Northampton, who had been totally blind for ten months, stumbled violently against a postal pillar-box the other day. He was partly stunned by the collision, but on recovering himself found, to his amazement, that he could see. Hurrying to a neighbouring chemist he had his eyes dressed with lotion, and is now, by the aid of spectacles, able to see clearly. A later report says that Mr. Vaughan attributes his recovery partially to a powder sent him by Mr. A. Leggett, of Elm, Wisbech, who claims to have cured himself by it after five years' blindness.

Another Warning.

We have received a letter in respect to a young man who is seeking a situation as a chemist's assistant in the West of London at present, and on the strength of his usual allowance from home not having arrived, he tries to borrow money. Strange to say, he has been quite successful in several instances, and the comparative ease with which he has obtained 5*s.* at a time doubtless helps him to persist in this non-laborious way of making a living. His name does not appear on the register of chemists, and it is not necessary for the purpose of this note, which may be the means of preventing others being taken in.

Free Poison-bottles.

Among the recommendations of the Dispensary Committee submitted to the Wolverhampton Board of Guardians on September 22 was one to the effect that "one dozen poison-bottles be purchased, to be lent out." The recommendation was agreed to without comment, subsequent inquiry eliciting the explanation that the bottles were intended to be of particular size and colour for the distributing of poisonous liniments, so that poisoning mistakes may be prevented. Hitherto these liniments were supplied in ordinary ginger-beer and other bottles brought by applicants for medical relief.

A Chemical Explosion.

An alarming explosion took place at the Alliance Chemical Company's Works, Fernhill, Bury, on September 22, and extensive damage was done. The process carried on is said to be the manufacture of saccharin, and the explosion occurred in a portion of the distillation apparatus in which some experiments were being made. Fortunately, no one was working on the premises at the time, otherwise the loss of life must have been serious. A heavy door, weighing nearly a ton, was blown off its hinges and thrown against an adjoining wall. The lid of the tank, weighing 1½ cwt., was carried right through the roof and landed in an adjoining yard. Practically the whole of the roof of the building, which is nearly thirty yards square, was shattered, and it is feared that the main structure has been seriously damaged. The damage is estimated at considerably over 1,000*l.*

An Unfortunate Chemical Experiment.

An explosion occurred at St. Michael's School, Ashton-on-Ribble, Preston, on September 27. The headmistress, Miss Bond, and Miss Huntley, one of the teachers, were, in the course of a chemical lecture, showing the action of sodium upon water. Miss Huntley placed a piece of sodium in water, when an explosion took place. She was bending over the water, and received the full force of the shock in the face, being terribly injured about the eyes. It is feared she will lose her sight. Miss Bond was also injured, but not so badly.

Birmingham Notes.

Mr. Marshall Freeman is to join in a three-cornered municipal contest in St. Paul's Ward.

The hop-market at Worcester, which is the largest in the world, was held last week. The quality ruled high, prices low.

Mr. Charles Ellis, who for many years was identified with the firm of Messrs. P. Harris & Co., Ltd., Edmund Street, has resigned his managing directorship.

For stealing casks from the premises of Messrs. Gilman & Son, Ltd., chemists, Corporation Street, to which access had been obtained by skeleton keys, two young men have been sentenced to terms of imprisonment, with hard labour.

Mr. Mead, who succeeded Mr. C. Luckman in the proprietorship of Bird's Retail Pharmacy at 10 Worcester Street, has transferred his services to Mr. Reeve, The Arcade, New Street, who has purchased the recipes, prescription-books, and other pharmaceutical essentials of the defunct establishment.

At the first bankruptcy meeting of John Crisp, carrying on business in Birmingham under the style of John Crisp & Co., provision-merchants, held last week, the debtor said he went from Norwich to Birmingham in 1900, and accepted a situation with the Progress Co., which carries on business in Fazeley Street as chemists and druggists. In that year a company called the Progress Co., Ltd., was registered with a nominal capital of 5,000*l.*, and the debtor was appointed one of the directors. The company was wound up in voluntary liquidation two years later, and the assets did not realise sufficient to pay a dividend. The debtor subsequently resumed business as a provision-merchant, and his deficiency is now 4,064*l.*

East Anglian Notes.

Mr. Chas. E. Owles, chemist, Bungay, displayed such dexterity at a bowls tournament last week as to warrant his being bracketed with another competitor for first and second prizes.

The large number of chemists in this district whose *clientèle* are members of the profession founded by Adam are at present making more or less brave shows of various seed-dressings and by newspaper advertisement or handbill calling attention to the same. The season for this class of heavy trade lasts but three or four weeks, yet does not escape the unwelcome notice of the cutter. Whilst perhaps there is no one obtaining full prices for certain specialities, it is to be hoped the "chip" quoting genuine *pulv. cupri sulph.* in 1-lb. packets at 4*s.* per dozen will soon see the error of his ways.

The season at Clacton-on-Sea has come to a somewhat premature close. The chemists say that though customers were as numerous as in previous years their purchases as a rule were smaller. In common with the other tradesmen the chemists have all decided to close their establishments for the whole day on October 11. The local Traders' Association have organised an excursion to Antwerp and Brussels (available four days). We understand that any East Anglian chemist desirous of joining the excursion can do so on making early application to the Secretary of the above Society. The return fare to Antwerp from Ipswich, Clacton, or Frinton is 2*s.* first class.

Sheffield Notes.

The Education Committee are contemplating the purchase of the buildings in Bow Street and Leopold Street (including the medical school) formerly occupied by the Sheffield University College, and the venue of the meetings of the B.P.C. in Sheffield. The price fixed by the valuer is 32,183*l.*

Mr. J. Gilbert Jackson, chemist and druggist, of Abbeydale Road, was sufficiently recovered from his recent severe accident to be able to be removed to Blackpool last week to recuperate, and appeared to be at the end of his troubles. He made rapid progress and could practically walk without his crutches, but on Friday night of last week, while out for a walk, one of his crutches slipped on the wet pavement, and he had the misfortune to fall. A local surgeon who was called in was able to give an assurance that there was no fresh fracture, but Mr. Jackson is again confined to his bed.

The Spirit-of-Salt Scandal.

On September 25 Dr. F. J. Waldo inquired at the City Coroner's Court into the circumstances of the death of a milkman named Griffin, who died at St. Bartholomew's Hospital on September 23 as the result of swallowing a large dose of hydrochloric acid. The deceased went to an oil-shop in Copenhagen Street, kept by a man named Randall, and asked for twopennyworth of spirit of salt. A mineral-water bottle was provided by the shopkeeper's son, who put nearly half-a-pint of the acid into it and placed it on the counter. Mrs. Randall said she intended putting a printed "poison" label on the bottle, but while she was getting some change the deceased put the bottle in his pocket. The

Coroner remarked that almost each successive case of poisoning which he had had recently disclosed some fresh anomaly in regard to the Poisons Schedule under the Act. Carbolic acid has been placed on the Schedule, and yet spirit of salt, which is a much more corrosive and deadly poison, is still freely sold by oil and colour men. Even young children are readily supplied with it; no questions are asked, and only occasionally do they hear of shopkeepers labelling the bottles. Since carbolic acid was scheduled suicides from its use had fallen considerably; but deaths from spirit of salt were rapidly increasing. Only last week he had two accidental fatalities—the acid being taken in mistake from a spirit-flask and a sauce-bottle respectively. The hospital house physician (Dr. Hatfield) observed that it was really a grave matter that such a deadly poison should have been left so long unscheduled, an opinion with which the jury agreed.

Remarks of a similar character were made by Mr. W. Schroeder (acting for Dr. Danford Thomas) at St. Pancras Coroner's Court, at the inquest on a cabinet-maker, named Bonner, who had purchased spirit of salt at a local oil-shop and drunk it in Regent's Park. Mr. Schroeder suggested that the attention of the Privy Council be called to the increasing number of deaths, with a view to their placing spirit of salt in the schedule.

For the Public Health.

An illustrated booklet, "A Guide to Sanitation," has been issued by the Hull Hospital Sunday Fund, of which Mr. W. Bousfield is assistant secretary. Thirty thousand copies have been printed and published without any cost to the fund, the advertisements covering the cost of production. The booklets have been addressed and distributed to the householders of Hull and district by voluntary labour, and they are likely to have a beneficial effect on the sanitary problem, which is at the root of nearly all the epidemics in large towns.

Dr. J. King Warry, medical officer of health for Hackney, in his annual report states that during last year the disinfectants issued to applicants consisted of 792 4-oz. bottles of carbolic acid and 4,470 1-lb. bags of Sanitas powder. The disinfectant issued to the Surveyor's and Engineer's Departments were: Kuna pine blocks, 1 ton 18 cwt. (57*l.* 10*s.*); carbolic powder, 6 tons 3 cwt. (13*l.* 10*s.* 7½*d.*); Sanitas powder, 1 ton (6*l.* 10*s.*); Kuna pine fluid, 80 gals. (12*l.*); carbolic acid, 223½ gals. (7*l.* 15*s.* 10*d.*); total, 97*l.* 6*s.* 5½*d.*

The Lady Dispenser's Salary.

The St. Pancras Guardians considered at their last meeting a letter from the Local Government Board declining to reverse their decision to refuse to sanction an increase in the salary of Miss C. M. Fox, dispenser of the workhouse and South Infirmary, from 120*l.* to 130*l.* per annum. The Board held that, according to the maximum scale of remuneration fixed for dispensers in the Metropolis. Miss Fox could not be given an increase until she had completed eight years' service. The Guardians decided, after discussion, to grant Miss Fox a money allowance of 20*l.* per annum in lieu of the dinner and tea daily, to which she is now entitled.

Sport.

Gramme C.C. v. May & Baker C.C.—This League match was played at Wormholt Farm, Shepherd's Bush, on September 23, with the following result: Gramme C.C., 35; May & Baker C.C., 37.

Newcastle Pharmacy F.C. v. Rutherford College F.C.—This fixture, played on September 27, resulted in a good game, in which the College forwards were seen to great advantage. In the opening half they scored from a penalty, and, adding another after the interval, ran out winners by 2 goals to 0.

The Sheffield Pharmacy Athletic Club played their second cricket match against the Poor-law officers, arranged by Mr. H. Antcliffe, on Thursday last week, at the Children's Homes Headquarters, and administered an even worse drubbing than on the previous occasion. The bright particular star of the Poor-law team, absent from the last match, who was to turn the scale of victory, got a duck, and his side only reached a total of 24, as against their opponents' 72.

Contracts.

The following contracts (in addition to those noted in previous issues) have been ratified:

Bishop Auckland Board of Guardians.—Messrs. Thorburn & Co., chemists, for drugs.

Bolton Board of Guardians.—Messrs. T. Moscrop & Co., 1 and 3 Folds Road, Bolton, for roll sulphur and disinfectants; Mr. J. R. Shallowcross, chemist and druggist, Tong Moor, for cod-liver oil and malt; Messrs. Wm. Green & Co., Ltd., 56 Deansgate, Bolton, for Benger's food.

Bucklow Board of Guardians.—Jeyes' Sanitary Compounds, Ltd., London, for disinfectants.

Cambridge Board of Guardians.—Mr. R. Sturton, chemist and druggist, to supply drugs, etc., for six months.

Cannock Board of Guardians.—Mr. T. W. Richards, Cannock, for borax 3d. per lb., dressing-combs 5s. per dozen, Condy's fluid 10s. 6d. per dozen bottles, Maw's feeding-bottles 9s. 6d. per dozen, methylated spirit 2s. 8d. per gal.; Mr. E. S. Fereday, Cheslyn Hay, for brimstone 1½d. per lb., Sanitas disinfectant-fluid 10s. 6d. per dozen pint bottles, clinical thermometers 1s. 9d. each, medicated lint 1s. 6d. per lb., spirit of turpentine 4s. per gal., tow 5d. per lb.; Mr. W. Harper, Bridgtown, for Jeyes' disinfecting-fluid 4s. 4d. per gal., medicated cotton-wool 1s. 2d. per lb., linseed meal 2½d. per lb.

Coventry Board of Guardians.—Mr. W. Murray, chemist and druggist, for drugs, etc., for six months.

Dartford Board of Guardians.—Messrs. Burgoyne, Burdidge & Co., Coleman Street, E.C., for drugs and druggists' sundries; Messrs. Dallett & Co., Putney, S.W., for disinfecting-fluid, 1s. 3½d. gallon, carbolic soap, 15s. 3d. cwt., cleansing-powder, 9s. 3d. cwt.

Dartford Rural District Council.—Mr. W. T. Tucker, Dartford, for disinfectants; United Alkali Co., for manganese of soda.

Doncaster Board of Guardians.—Messrs. Shaw & Sons to be chemists to the union for the next twelve months.

East Ham Town Council.—Messrs. Allen & Hanburys, Ltd., for anti-diphtheritic serum, 2l. 11s. per dozen cases. Mr. Knights Dack, chemist and druggist, East Ham, for drugs and sundries. Mr. Dack's prices are keen. We quote a few of the lowest: Liquorice-powder, B.P., 5d. per lb.; iodoform ointment, B.P., 3s. per lb.; Chesebrough vaseline, 8d. per lb.; ether pur., B.P., 5s. per lb.; camphorated oil, B.P., 1s. 3d. per lb.; ipecacuanha-wine, B.P., 1s. 9d. per lb.; Idris's soda-water, 1s. 6d. per half-dozen syphons; cod-liver oil and steel wine (equal parts), 10s. per gal.; gall-and-opium ointment, 1s. 9d. per lb.; adrenalin, 4s. 6d. size, 3s.; Bland's pills, sugar-coated, 4d. per gross; salicylate of sodium, 1s. 6d. per lb.; essence of peppermint, B.P., 6s. 6d. per lb.; tincture of quinine, 2s. 6d. per lb.; glycerin of belladonna, 2s. 3d. per lb.

Faversham Rural Council.—Mr. E. Jenkins to be chemist for six months.

Gloucester Board of Guardians.—Mr. R. J. Shepherd, pharmaceutical chemist, Northgate Street, Mr. J. Franklin, chemist and druggist, Southgate Street, and Mr. H. Hargreaves, pharmaceutical chemist, The Cross, to supply drugs and medicines for six months.

Halifax Board of Guardians.—Mr. Arthur Lunn, of the Atlas Oil Works, Halifax, for dysalateries.

Havant Board of Guardians.—Messrs. Carr & Co., for absorbent wool 1s. 2d. per lb.; fullers' earth 4d. per lb., quinine 1s. 7d. per oz.; Messrs. Lancaster & Crook for boric crystals 5½d. per lb., boric powder 5½d. per lb., castor oil 1s. per pint, cod-liver oil 6s. per gal., camphorated oil 1s. 6d. per pint, chloric ether 3s. 10d. per lb., cotton-wool 1s. 1d. per lb., liquorice powder 9d. per lb., carbolic tow 8½d. per lb., turpentine 8d. per pint, vaseline 9½d. per lb., zinc powder 1s. per lb.; Messrs. Williams & Burridge for carbolic lotion 1s. 3d. per gal., carbolic oil 1s. 2d. per pint, cough-mixture 2s. 9d., diarrhoea-mixture 1s. 1d. per pint, lint 1s. 5d. per lb., Izal 1s. 3d. per pint, boric lint 1s. 5d. per lb., mist. alba 2s. 6d. per gal., zinc ointment 1s. 2d. per lb., boric ointment 1s. 2d. per lb., red lotion 2s. 6d. per gal., sulphuric ether 2s. 6d. per pint, surgical tow 5d. per lb.; Messrs. Leverett & Frye,

methylated spirit 3½d. per pint; Mr. P. P. Davies, morphine 5s. 6d. per oz., and disinfecting-fluid 2s. 5½d. per gal.

Hull Board of Guardians.—Mr. J. T. Lincoln, pharmaceutical chemist, for drugs.

Kidderminster Board of Guardians.—Messrs. Ferris & Co., Bristol, for drugs.

Luton Board of Guardians.—Mr. J. F. Percival, London, Liebig's extract of beef, 4s. 9d. per lb.; Mr. T. G. Roberts, Luton, sulphur flowers, 2d. per lb., rolled brimstone, 8s. 6d. per cwt., saltpetre, 3d. per lb.

Medway Board of Guardians.—Mr. W. K. Hearne, Chatham, Jeyes' sanitary fluid, 3s. 7½d. per gal.; Mr. Chas. Game, Chatham, invalid bovril, 4s. 7½d. per lb.

Poole Board of Guardians.—Mr. H. Ayre, chemist and druggist, Poole, for cod-liver oil at 1s. per pint, invalid bovril at 4s. 6d. per lb.

Prescot Workhouse.—Messrs. Evans Sons Lescher & Webb, Ltd., Liverpool, for drugs, at 682l. 9s. 2d.

Reigate Board of Guardians.—Mr. W. H. Fowler, pharmaceutical chemist, for drugs.

Runcorn Board of Guardians.—Mr. J. H. Weston, chemist and druggist, for drugs and dysaltery.

Stepney Board of Guardians.—Messrs. John Knight & Sons, Ltd., Silvertown, for soap.

Stoke-upon-Trent Board of Guardians.—Mr. T. C. Cornwell, chemist and druggist, Hanley, for drugs for a year.

Stowmarket Board of Guardians.—Messrs. Stearn Bros. for disinfectants.

Strand Board of Guardians.—Messrs. Burgoyne Burdidge & Co., Coleman Street, E.C., for the half-yearly supply of medical appliances and sundries.

Swindon and Highworth Board of Guardians.—Messrs. Limmel & Co., Swindon, for Izal disinfecting-powder, 6s. 6d. per cwt., Izal fluid, 3s. 6d. per gal.; Mr. R. Coleman, Swindon, Bovril, 4-oz. bottles, 18s. 6d. per dozen.

Walsingham Rural District Council.—Mr. D. Davison, pharmaceutical chemist, Fakenham, for disinfectants.

Wetherby Board of Guardians.—Mr. J. Jackson, pharmaceutical chemist, for drugs.

Wolverhampton Board of Guardians.—Messrs. C. J. Hewlett & Son, Charlotte Street, E.C., for drugs 57l. 1s. 6d.) for the workhouse; Messrs. Burgoyne Burdidge & Co., Coleman Street, E.C., for surgical dressings (60l. 12s. 10d.); Messrs. Corby Stacey & Co., High Holborn, W.C., for drugs, etc. (31l. 7s. 11½d.), to the out-relief dispensary.

York Board of Guardians.—Mr. Henry Rowland, Foss-gate, York, for disinfectants.

Irish News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Pharmaceutical Society of Ireland.

The annual meeting of the Society is to be held on October 2, at 67 Lower Mount Street, Dublin, at 7.30 p.m. The voting-papers for the election of seven members of council have been sent out. There are eight candidates:—Messrs. W. Jamison, W. J. Baxter, G. D. Beggs, J. E. Connor, W. F. Wells, P. N. White, A. R. Lester, and C. P. Fairweather. Mr. Johnston Montgomery, whose term of office also expires, is not seeking re-election. The two new candidates are Mr. A. R. Lester, 107 Patrick Street, Cork, and Mr. C. P. Fairweather, 107 Upper George's Street, Kingstown. The Society's gold medal is to be presented to Mr. Thomas Kearney at the annual meeting, and Dr. J. C. McWalter has given notice of the following motions in regard to the sale of poisons:

1. That it is desirable that similar regulations for the storage, sale, and dispensing of poisons as are enforced by the Pharmaceutical Society of Great Britain be adopted by this Society.

2. That the Pharmaceutical Society of Ireland recommend that the substances suggested to be added to the schedules of the Poisons Act by the British Society be also added to the Irish Act.

3. That owing to the increasing consumption of methylated spirit of wine, it should be sold only as a poison.

Personal.

Mr. W. W. Elliott, chemist and druggist, of Belfast, has been elected a vice-president of the Y.M.C.A. Camera Club. Mr. Elliott is one of the most enthusiastic members of the club, and during the year he was second in the lantern-slide competition. The silver medal presented by him for twelve postcards was won by Mr. D. J. Hogg. In the enlargement competition Mr. Elliott won the bronze medal.

Business Changes.

Mr. Charles O'Hagan, pharmaceutical chemist, The Medical Hall, 67A Hill Street and 1 Margaret Square, Newry, has taken Mr. Charles O'Hare, pharmaceutical chemist, into partnership, the firm being now known as O'Hagan & O'Hare.

Vitriol-carboy Smashed.

At Belfast this week a carter in charge of a lorry was attempting to take a carboy of vitriol from the vehicle for delivery to Messrs. Grattan & Co., Ltd., chemists, Corn Market, when by some means or other the carboy was smashed, and some of the contents were spilt in the street. Before the carter had time to get clear, the fluid had soaked through his boots, and caused slight injury to his feet. He was taken into Messrs. Grattan's shop, where his injuries were attended to.

Scotch News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Died in the Chemist's.

A well-known Dumfries solicitor was seized with an attack of hæmorrhage on September 21, and died in the shop of Mr. W. G. Johnstone, chemist and druggist, Dumfries.

Recent Will.

The inventory of the movable estate of the late Mr. John Fearnside, chemist and druggist, sometime of 49 Green, and residing at 18 Ashley Road, Aberdeen, who died on August 18, has been lodged with the sheriff-clerk, and amounts to 12,358*l.* 9*s.* 9*d.*, on which 494*l.* 13*s.* 7*d.* of estate duty has been paid.

An Uaruly Customer.

At Dumfries Police Court, on September 22, a shoemaker, named Stewart, was sentenced to fourteen days' hard labour for assaulting William G. Johnstone, chemist and druggist. Prisoner went into Mr. Johnstone's shop and created a disturbance. In endeavouring to eject him, Mr. Johnstone was struck on the chest.

East Stirlingshire Medical and Pharmaceutical Bowling Association.

The final tie in the competition held under the auspices of this Association took place on September 20, and resulted as follows: Dr. Young, 21 shots; Mr. Bennie, 18 shots. The final in the consolation competition ended in a win for Dr. Fraser by the narrow margin of one shot. During the afternoon the preliminary ties of a pairs competition were played, and the semi-final and final ties were adjourned.

Smashing a Druggist's Window.

At Dumfries Sheriff Court, on September 25, a respectable dressed young man, named John Kimm, labourer, was charged with having, on Sunday morning, maliciously broken and destroyed a plate-glass window, value 5*l.*, in the shop of Mr. James Fingland, chemist, 102 South Drumlanrig Street, Thornhill. He pleaded guilty, and, as the result of an examination by Dr. Hunter, which showed him to be of weak mind, he was committed to the Crichton Institution.

A Chemist's Affairs.

A private meeting of the creditors of Mr. Henry Fife Scott, chemist and druggist and general merchant, of Bowmore, Islay, was held on September 19. The liabilities are stated at 1,225*l.* 6*s.* 1*d.*, and the estimated assets, after deducting preferential claims, are 370*l.* 4*s.* 5*d.* An offer of composition of 6*s.* in the pound, payable in two instalments, was rejected, and a motion that debtor be asked to pay 6*s.* 8*d.* in the pound in like manner met with general approval. Failing this it was decided to ask the debtor to

sign a trust-deed. The trade creditors include W. Cooper, Son and Nephews, Berkhamsted, 12*l.* 4*s.*; James Taylor, jun., Glasgow, 13*l.* 2*s.* 7*d.*; Carruthers, Sons & Co., Glasgow, 5*l.* 0*s.* 7*d.*; Glasgow Apothecaries' Co., 52*l.* 16*s.* 5*d.*; Evans Sons Lescher & Webb, Ltd., Liverpool, 150*l.*; T. Hinshelwood & Co., Glasgow, 20*l.* 8*s.*

A Dumfriesian in Buffalo.

In our issue of September 2 (p. 398) there was described "America's Largest Drug Stores," owned by Stoddart Bros., of Buffalo. Mr. Thomas Stoddart, one of the owners, has recently (so we gather from the "Dumfries and Galloway Courier") been on a visit to his native town, Dumfries. On his return to Buffalo at the beginning of the present month, Mr. Stoddart was welcomed at a public dinner, and in the course of his address of thanks the guest of the evening said that Dumfries was to his mind the cleanest town in Europe. The streets were so clean that one could take one's meals upon them. Mr. Stoddart was born at Foregirth, Kirkmahoe, where his father was a farmer. His parents left Scotland more than forty years ago for the United States, where, as we have seen, their two sons have prospered in pharmacy.

French News.

(From our Paris Correspondent.)

PROFESSORS FOR PERSIA.—The Shah's predilection for Frenchmen as doctors and pharmacists has often been noticed. M. Debove, Dean of the Paris Faculty of Medicine, has just issued a notice asking for two candidates for the chairs of medicine and surgery in Persian educational establishments. The engagement is for three years, the salary from 480*l.* to 600*l.*

"MEDICINE ON THE STAGE" is the subject of an entertaining *feuilleton* in the "Journal des Débats" last week from the pen of Dr. Daremberg, the friend of Pasteur, the doctor of the Czarewitch, and "the fee of drugs and systems," as he has been described. He quotes Crispin the valet in Regnard's comedy of the "Folies-Amoureuses," and touches on Flaubert's "Madame Bovary" and Edmond About's "Germaine" and "Le Nez d'un Notaire" as well as M. Brieux's "Evasion" and M. Lavedan's "Duel."

A BITTER PILL.—A female visitor rang at Mademoiselle Carlin's door in the rue Labryère last week. "I've come from the pharmacy for the money for the pills," she explained. "But I've ordered no pills, and want none," protested the youthful dressmaker. "Then better go round to the pharmacy, or they will be summoning you for the debt. Besides, if someone has thus been using your name, you should get their description." Mademoiselle Carlin went. The pharmacist knew nothing of the pill order. When she got home again she found the place ransacked and 40*l.* of money and some jewels gone. The pseudo-collector was a burglar in petticoats.

THE INTERNATIONAL TUBERCULOSIS CONGRESS meets at Paris (Grand Palais des Champs-Élysées) from October 2 to 7. The Government has shown its interest in the subject by a subvention of 4,000*l.* towards the expenses, and well-known men, like MM. Lannelongue, Landouzy, and Grancher, are taking up the matter. Some 2,500 or 3,000 members (French and foreign) are stated to be inscribed, and an Anti-Tuberculosis exhibition is to be held. In this connection a French scientific journal states that the Chamber of Deputies of Rio de Janeiro has voted "a prize of ten millions in gold" to the inventor of a process fully proved to cure tuberculosis, etc. An International Committee of two members of the local Academy of Medicine and one doctor from each of the Academies of Paris, London, Vienna, and Rome are to act as jury. Dr. Henri de Rothschild, who is so largely interested in all social problems, has invited the delegates to a luncheon at his beautiful country seat, Veaux de Cernay. The guests travel by special train, and after luncheon are to be driven in automobiles through the famous valley of the Chevreuse to the picturesque ruins of its old abbey. A fête given by the "Matin," visits to hospitals and public institutions, and numerous receptions have all been arranged with the object of beguiling pleasantly the delegates' spare time.

India and the East.

(News from our own Correspondents.)



A SNAP-SHOT IN KARACHI.

The business premises of Messrs. E. Brooks & Co., Wholesale and Retail Druggists, Elphinstone Street.

CAPTAIN SMITH, managing director of W. E. Smith & Co., Ltd., pharmaceutical chemists, Mount Road, Madras, won the championship at the recent M.V.G. rifle meeting.

THE GEORGE TOWN DISPENSARY, LTD., Penang, have recently made extensive alterations in the interior of their premises. Two fine wall showcases, over 15 ft. long and proportionately tall, have been placed in position, and, with the other improvements executed, have made it the best-appointed dispensary in Penang. The management are also the successful tenderers for advertising on the back of a million and a half tram-tickets shortly to be issued by the Penang Municipal Tramways. The advertisement will appear in English, Chinese, and Malay.

A CHEMIST DROWNED.—Particulars of the death of Mr. Joseph Hicks (see *C. & D.*, September 2, p. 412), the young Edinburgh chemist who only went out to Shanghai in March last, have been sent to us by Mr. Hunt, of Wellington, Salop, whose son is in Shanghai. It appears that a party, among whom was Mr. Hicks, went to Minhong from Shanghai on a steam-launch, and on the return journey, while the party were in the cabin trying to clean some of the mud from their clothes, Mr. Hicks went on deck with a bucket, and, giving the rope two or three turns round his wrist, dropped the bucket into the water. The launch was travelling fast at the time, and when the bucket filled the strain on the rope was so great that it pulled him overboard, and he was drowned before any of his companions knew what had occurred. Mr. Hicks was about twenty-five years of age. He served his apprenticeship with Mr. George Lunan, pharmaceutical chemist, Edinburgh, and passed the Minor from Mr. William Duncan's School in 1902. He then went to manage Mr. Bennie's business at Polmont, and from there went to Messrs. Llewellyn & Co., Shanghai.

PEPPER-DISEASE IN INDIA.—An interesting report has been issued by Mr. C. A. Barber, Indian Government Botanist, regarding the lines of work to be conducted on the experimental farm in Malabar, from which we gather that the scheme is both comprehensive and carefully planned in detail. The piece of land selected consists of about seventy-five acres of the most varied character as regards quality, and it is proposed to divide it into eighty plots of convenient size. These plots have been found to differ enormously, and "a study of their differences and the improvements of the plots, or otherwise, by various expedients" will constitute the main work of the farm. There will be careful study as to the causes of death of the vines generally, thousands of which have died within a recent period. With this object a census of deaths is to be kept in each plot, and all disease-phenomena "will receive such attention as time and staff permit." These are only a few points from the report, which discusses the question of a suitable "standard" for the pepper climber, the study of the botanical and economic flora on the plantation, district touring in the interests of pepper-cultivation, and so on.

Colonial and Foreign News.

SULPHUR MINING DISASTER.—The Rome correspondent of the "Daily Chronicle" reports that extensive sulphur mining operations under Mount San Paolino, at Sutera, in Sicily, caused a colossal collapse of the mountain on September 21, burying the town at its foot. The majority of the inhabitants, who were forewarned, had time to flee to the open country, but there are rumours of many dead and injured.

RUSSIAN ITEMS.—Some days ago, says the "Slovo," an excursion of members of the Northern Pharmaceutical Society took place to the frontier of Finland. While the picnickers were resting after a walk through the woods they were suddenly surrounded by officers who explained that they had received orders from St. Petersburg to surprise the meeting of pharmacists. The inquiry began at midday and did not finish till half-past six in the evening. After the police had taken down their report the excursionists, to the number of about seventy, returned to St. Petersburg. At a recent meeting of delegate pharmacists it was decided, in the event of any member being subjected to persecution by the police, that all should at once reply by a general strike, and it was further decided to boycott any member who should fail to act with the general body.—It is announced in the same paper that a large number of master pharmacists in St. Petersburg have in conformity with the instructions of the Medical Inspector of the capital, discharged their employés who had struck work, and have begun to engage new assistants. The entry of fresh employés has caused trouble in some pharmacies, and by order of the governor the police have taken measures to protect the pharmacies whose owners are likely to require it. Concerning the strike the "Novoe Vremya" has a long article, impugning the monopoly system in vogue as to pharmacies in Russia. It says:

The strikes of the pharmacists continue to grow. The managers of the pharmacies have undertaken themselves the dispensing of medicines, with the assistance of the members of their families, including young folks. Unfortunately, it is not known how many superfluous people have, owing to this, passed early to the other world. To the owners this is of no importance. They cling tightly to the privileges given them by the existing pharmacy monopoly, satisfied that this monopoly gives them the power to issue victoriously from the struggles with the pharmacist learners, assistants, and dispensers. The hardships of the assistants is not due to the pharmacists' managers. The 400 per cent. to 500 per cent. profit stated to be made by pharmacists does not benefit the owners of pharmacies, owing to the monopoly which has become almost a Stock Exchange speculative counter. For one business as much as 4,000% to 15,000% is paid in St. Petersburg or Moscow. It is rare for a professional pharmacist to have such a sum, so that the pharmacies are gradually passing into the hands of people who have nothing in common with pharmacy: whose first and important care is the interest on the money laid out in the purchase. The journal proceeds to explain that the monopoly does great injury to the country population. There are conditions attached to it which are out of date and irksome. Pharmacists themselves are understood to prepare medicaments, but these are now prepared in large factories, and the whole rôle of the pharmacist consists (and that not always) simply in dispensing. Were the unnecessary formalities removed, the holding of a pharmacy would be accessible to all pharmacists, and there is no reason for maintaining such a situation. With free pharmaceutical trading the villages could be served, and the assistant, who is now worked to death, could earn enough to free himself from slavery and the people from quacks.

The "Nestor of Russian pharmacy" is what the "Novoe Vremya" calls Julius Karlovitch Trapp, the professor in the Medico-Chirurgical Academy, St. Petersburg, who has done much in his time for Russian pharmacy, and who on September 21 completed his ninetieth year. Professor Trapp was born at Miaromolie in 1815, but passed the greater part of his life in St. Petersburg, and he is now one of its oldest inhabitants. Besides his scientific teaching work he has assisted in the production of seven Pharmacopœias and has written several books on pharmacy and forensic chemistry. He is best known locally for his investigations into the quality of the water of the Ladoga Lake and of the Neva and St. Petersburg canals.

South African News.

(From our own Correspondents.)

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

South African Pharmaceutical Association.
Pharmaceutical Society of Cape Colony.
Natal Pharmaceutical Society.
Transvaal Pharmaceutical Society.
Rhodesia Pharmaceutical Society.
Northern District Chemists' Association.
Pharmaceutical Society of Orange River Colony.

Cape Colony.

MR. G. R. THWAITES, chemist, Beaufort West, has sold his business to Messrs. Lennon, Ltd.

BELGIAN DRUG-EXPORTS.—The exports of drugs from Belgium to Cape Colony last year amounted to 467 tons, or 13 tons less than in 1903; and of chemicals only 26 tons were exported, being a decrease of 77 tons as compared with the previous year.

BARIUM-POISONING.—An inquiry into the death, in strange circumstances, of a native carter was recently held in King William's Town. The deceased was delivering some casks of chloride of barium to a local factory, and, under the impression that it was Epsom salt, he took a dose from some that had leaked into his cart. On the following morning he complained of great pain, and died shortly after entering the hospital. A verdict of death by misadventure was returned.

PARCEL-POST INVOICES.—The Cape Customs Department have thought it desirable to issue the following warning in the "Government Gazette" with reference to invoices for goods imported by parcel-post in the Colony:

In consequence of the steps taken by this Department to prevent the underpayment of duty on goods sent per parcel-post, the suppliers are forwarding to persons resident in this Colony false invoices, to correspond with the false declaration of value made by them on the form or label affixed to the parcel under the postal regulations, with a view to their production in the event of such declared value being challenged by this Department. It is, therefore, notified for general information that under the Customs Act 10 of 1872, any person who makes use of any false document in the clearing of goods shall, for every offence, forfeit the sum of 200*l.*, and that proceedings will be instituted for the recovery of the said penalty in every case.

CHEMISTS' LICENCES.—The following circular has been sent from the Treasury to all retail chemists in Cape Colony, and in consequence there has been a great demand for "general dealers' licences." This action on the part of the authorities had been anticipated by the trade, as a result of the decision against Messrs. Heynes, Mathew & Co. in their recent appeal. The wording of the notice has only served to increase the general bewilderment as to what a chemist may legally sell under his licence. The term "as such" seems to be the stumbling-block, and as no one can define it with any certainty, the only course left is for all retail chemists to have the two licences if they would avoid further trouble with the authorities.

SIR,—I am directed to draw your attention to the recent decision of the Supreme Court, in the appeal case of Heynes, Mathew & Co. *v.* Rex, under which it was ruled that Act No. 38 of 1887 repealed in law anything inconsistent therewith in Act No. 15 of 1877, and that a chemist does not require a general dealer's licence connected with his business as a chemist and druggist, but that an apothecary's licence will not cover the sale of tobacco, pipes, playing-cards, or other articles not ordinarily included in the business of a chemist and druggist as such.

Your attention is therefore drawn to the fact that a general dealer's licence is necessary where anything is sold that does not come under the specific provision granted for the benefit of chemists and druggists.

I have the honour to be, Sir,

Your obedient Servant,

WM. A. COLLARD, Assistant Treasurer.

The decision in the Heynes case has created considerable interest in the local Press. A "Life Member of the Pharmaceutical Society of Great Britain" asserts in the "Cape Times" that tobacco is a drug, for it was included in the British Pharmacopœia of 1885, and he quotes Squire's "Companion" as to the medicinal properties of dried leaves

of *Nicotiana Tabacum*. The "South African Review" says it is a remarkable thing that during the past eighteen years, since the Act came into force, chemists have been permitted to sell all sorts of articles in general use, without being interfered with, and in country districts particularly this custom has proved of great convenience to the inhabitants. A more expedient course than the recent prosecution would have been to have circularised every chemist in the country. The public revenue would have been enriched just the same, and a respectable body of traders would not have been harassed by prosecution.

Natal.

CHEMISTS' LICENCES.—In connection with the Cape Town prosecution, a Maritzburg correspondent of the "Cape Argus" explains that in Natal towns there is no such thing as a chemist's licence pure and simple. Every year the chemists take out a general store retail licence at a cost of 3*l.*, or in other cases a wholesale dealer's licence for 5*l.* Some years ago it was necessary for chemists to have two licences, one from the Government for 5*l.* for practice as chemists and another as store licence from the Corporation. The Government have now given up the collection of licences and allow the Corporation to reap the annual benefit of the single licence. The position as regards country chemists where there is no authority save the Government to collect the licence is somewhat different. There the chemist has to pay his 5*l.* licence only. Upon this he may sell practically what he thinks fit.

BRITISH ASSOCIATION.—The members of the Association having concluded their visit to Durban, writes our correspondent on September 2, left for Pietermaritzburg, where they arrived during the afternoon. There they were well looked after by the local Reception Committee. A garden-party at Government House was given in their honour by his Excellency the Governor, Sir Henry McCallum. The official reception, which was held in the Town Hall in the evening, attracted a very large concourse of citizens, among them being the Governor, the Mayor, and the members of the Town Council attired in civic robes, the Prime Minister of Natal, the Deputy Mayor, and various members of the Ministry. The Governor made a short speech, and, Professor Darwin having replied in suitable terms, Colonel Bruce delivered his lecture on "Sleeping-sickness in Uganda." The second day's proceedings included a visit to the native location at Henley, where a Kaffir dance and marriage ceremony were arranged. About a thousand natives took part. The Governor was present as Supreme Chief of the native population. The Secretary for Native Affairs directed the performance, which was under the personal care of three of the leading chiefs of the Colony—namely, Mhlola, Laduma, and Umveti. Others of the party visited the Government experimental farm at Cedara, established for investigations connected with the agricultural development of the Colony. Others, again, visited the Government laboratory, which was reached by a three-mile drive through the Town Bush Valley. There they saw the various methods employed in the preparation of vaccines, etc., and the collection of venom from South African snakes for use as serum against snake-bite. Among the various places of interest visited in and around the town were the Natal Museum, Houses of Parliament, Town Hall, educational institution, Botanical Gardens, and Alexandra Park. In the evening Mr. H. T. Ferrar lectured in the Town Hall on "The Antarctic Region." On the following morning the members of the Association entrained for Johannesburg, where they arrived on August 28. Our Natal correspondent had the pleasure of a chat with Dr. Hugh Marshall, demonstrator of chemistry at Edinburgh University, who expressed his delight at the arrangements that had been made for the comfort of the members of the British Association. Dr. Marshall was looking forward to a trip to the Victoria Falls on the Zambesi River—a trip which no doubt will become one of the chief objects of interest to visitors to South Africa.

Transvaal.

MR. G. C. HUDSON, chemist, Doornfontein, has sold his business to Mr. W. Lambert-Shea.

SUICIDE OF A CHEMIST.—Bernard Titovich, chemist, Georgetown, committed suicide on August 31. He had been in financial difficulties for some time, and while in

Johannesburg the Sheriff attached his stock. He returned home close on midnight, and on hearing of the Sheriff's visit he became very despondent. He took poison, and died in half an hour. Amongst his papers was found a letter written a fortnight before, in which he gave directions for the management of his affairs so that his creditors might be paid out in full.

THE SALE OF POISONS.—Our advices in regard to the proposed amendment of the Ordinance dealing with the sale of poisons by storekeepers bring us up to September 4, when matters were still *in statu quo*, except that they threatened to degenerate into a newspaper battle. Representatives of the Transvaal Pharmaceutical Society and of the Pretoria Chemists' Association had a pleasant outing at Pretoria on August 21, when they called upon the Colonial Secretary, and received an assurance from him that the poisons amendment would be kept back for a week, but before it could be reached the Legislative Council adjourned for a short vacation, reassembling on September 4, after the mail left. The whole trouble has arisen in an interesting way. Outside the Rand people live far apart, with a village or township every 100 miles or so. All one passes on the beaten path over the veld are wayside stores ("winkels") at intervals of five, ten, or fifteen miles, mostly owned by Russian Jews, who probably through ignorance resolved last March that as they cannot sell Pynstillende Droppels and chlorodyne they will not sell castor oil, Beecham's pills, Epsom salts, and other medicines more or less necessary to their customers. There is really in the Ordinance nothing to circumscribe the trading of these store-owners so far as it is compatible with the safety of their customers. There has been little difficulty on the part of these "reformers" and their backers in getting lay support for their "reform." For example, the Johannesburg Chamber of Commerce has approved of Clause 7 of the Draft Ordinance and has requested Mr. Hosken to support the Government's proposal on behalf of the Chamber. Mr. M. Cruickshank, Klerksdorp, strongly supported the clause in a well-written letter to Johannesburg papers, to which effective replies came from Mr. T. J. Bickford, Krugersdorp, and another qualified chemist. The "Transvaal Leader" of September 4 points out that "the real object of the proposed amendment seems to have been obscured by the introduction of much criticism of Dutch remedies," and adds that—

The recent protests [of chemists] appear to partake of too narrow and interested a character, and we trust that the Government will not be deterred from its effort to give reasonable facilities to people living in outside districts to supply their needs. When we point out that in England licences to sell patent medicines are granted to any respectable trader at a charge of 5s. per annum, and are held by most of the grocers throughout the country, it is difficult to see why the recent outcry has arisen.

This admirably exemplifies the ignorance of one side of the contestants. The Colonial chemists and physicians do not wish to do more in respect to patent medicines than is done at home—viz., to confine the sale of those containing poison to qualified and registered persons. We note that the Medical Society have also issued a strong commentary on the proposal, and when the mail left it was expected that the second-reading stage would be forcibly contested.

Agricultural Notes.

THE Board of Agriculture and Fisheries, 4 Whitehall Place, London, S.W., has issued further useful leaflets in regard to agricultural and allied matters, and copies of them can be obtained free on application to the Secretary at the above address. We append brief notes on these latest issues, and may observe that the Board can supply Nos. 1 to 100 of the series, bound in stiff boards, on receipt of sixpence.

ADVICE TO BEGINNERS IN BEEKEEPING (Leaflet No. 128).—Describes the appliances, the hive, the swarm and its treatment, conditions conducive to success, and gives a few notes on diseases to which bees are subject.

A MUSHROOM DISEASE (Leaflet No. 139).—This refers to the parasite *Hypomyces perniciosus*, which is figured and described.

FELTED BEECH COCCUS (Leaflet No. 140).—*Crypto-coccus fagi* is one of the most destructive pests, attacks the beech

only, and is more or less common in the United Kingdom. The leaflet describes the signs of infestation (photographs being reproduced), the life-history of the insect, and the treatment. The last consists of application of an insecticide, the following formulæ being given:

Paraffin Emulsion.—Mix equal parts of soft soap, boiling water, and paraffin, churning with a syringe. When required dilute with twenty times its bulk of water, again churning.

Caustic Alkali Wash.—Dissolve caustic soda 1 lb. in water, and, separately, pearl ash 1 lb. in water. Mix, add soft soap $\frac{3}{4}$ lb., and water to 10 gals.

Gillander's Mixture.—Dissolve soap 1 lb. in boiling water (soft) $\frac{1}{2}$ gal. Add sulphur a handful (say 4 oz.), paraffin and oil of turpentine of each 1 pint. Mix well, and add water 4 gals.

Caustic alkali is a winter wash, to be applied as a spray. The others are to be scrubbed well into the bifurcations and crevices of the branches between September and April.

PREPARATION OF HONEY FOR THE MARKET (Leaflet No. 141).—Tells how to remove the combs, prepare them for the market, or extract the honey. The bees are driven down from the combs by placing a cloth with a few drops of carbolic acid over the top of the frame.

CALF REARING (Leaflet No. 142).—Describes the calf house, the birth, and feeding the calf. Carbolic oil (Calvert's No. 4 acid 1 part and Gallipoli oil 19 parts) is recommended to dress the calf's navel. In regard to dietary and milk substitutes, the properties of linseed and cod-liver oil are discussed, and a scheme of feeding is given for the first six months. The following formulæ are given:

Calf Meal No. 1.—Used when a small quantity of separated milk is available: 8 parts of oatmeal (by weight), 1 part of ground linseed. Scald $2\frac{1}{4}$ lbs. overnight with five pints of boiling water, boil for ten minutes next morning, and add five pints of separated milk with about $\frac{1}{4}$ oz. of salt and 2 oz. of sugar. No. 2.—When no separated milk is available: 2 parts linseed-cake meal, 2 parts oatmeal, 1 part ground linseed. Mix 3 lbs. with five quarts of boiling water overnight, and boil for ten minutes next morning; serve with salt and sugar as with No. 1. No. 3.—Requiring no boiling: 14 parts linseed-cake meal, 5 parts ground linseed, 2 parts wheat flour, 2 parts locust-bean meal. Mix 3 lbs. with five quarts of boiling water and a sprinkle of salt. Where No. 2 or No. 3 is used it is introduced and the new milk reduced gradually.

TURNIP MUD BEETLE (Leaflet No. 143).—Figures and describes *Helephorus rugosus*.

SHEEP-DIPPING (Leaflet No. 145).—Describes the more common parasites (ked, tick, lice, and maggots), how to dip, and the effects of dips. It is stated generally that tar acid (carbolic) dips are effective in destroying all sheep parasites; arsenic and sulphur dips are also thoroughly effective, so are tobacco and hellbore dips; but "farmers will generally find it more satisfactory to use one of the many proprietary dips now on the market" which bears a label stating it has been tested by the Board.

TESTS FOR FALSMETS' MILK (Leaflet No. 146).—Most of the agricultural colleges (a list of which is given) test milk for fat percentage at 6d. per sample (Essex 1s., West of Scotland nil) on conditions detailed in the leaflet, which gives instructions how to take samples. Strong glass tubes, "obtainable from any chemist, of about $\frac{3}{8}$ in. bore and open at both ends," are used to withdraw samples from the cans by dipping a tube into a can, closing the top with the thumb, withdrawing the tube, and emptying the contents into a clean bottle.

FENCES AND HEDGES (Leaflet No. 147).—Describes thorn, holly, beech, and privet hedges, and wire and ercoted fences.

THRESHING OF BARLEY (Leaflet No. 149).—Tells how injury to the grain may be avoided.

CLEANLINESS IN THE DAIRY (Leaflet No. 151).—The sources of bacterial contamination of milk are described, micro-photographs of bacterial cultures being used to illustrate the points.

STORING TURNIPS (Leaflet No. 153).—The purpose of this is to show how turnips may be protected from frost.

Chemists in agricultural districts will recognise the importance of making themselves familiar with the Board of Agriculture's suggestions, as these are now getting to be more widely known to farmers, and, directly or indirectly, lead to business, which retail chemists should be prepared to meet and encourage.

PYRENE-OIL EXPORTS.—The shipments from Corfu last year amounted to 1,220 tons, against 750 tons in 1903 and 1,555 tons in 1902. Pyrene oil is chiefly in demand for the manufacture of green soap, and is obtained from the stone of the olive. It was mostly exported to Italy and Austria-Hungary at about 21s. per ton.

Chemists' and Druggists' Society of Ireland.

AN important event in the history of the Chemists' and Druggists' Society of Ireland took place in Belfast on September 21, when the new rooms which have been acquired at 11 Waring Street were formally opened in presence of a

A telegram expressing regret at being unable to be present was received from Mr. Horace Haslett, son of the late Sir James Haslett, M.P., and several letters of apology for absence were read from members of the trade in town and country. After tea,

The Chairman gave an address, in the course of which he said he was pleased they had come into occupation of rooms which they could call their own, and that they were no longer in the position of lodgers. He trusted that every member would do his best to add to the prosperity of the Society, and that in a very short time they would witness a large accession to their membership. The Society has accomplished much in the interest of the trade in the past, but there is still much left for it to do, and he trusted all the members would be unremitting in their efforts to further the interests of the Society. In the new rooms they would be able to consider matters bearing on their own trade, and mutual advantage would accrue. (Applause.)

Mr. W. J. Rankin (Hon. Secretary) gave an interesting sketch of the history of the Society, which, he said, was originally founded in 1875. The Society then existed for a year and a half, and with the late Mr. W. Dobbin as President and the late Sir James Haslett as Hon. Secretary a great deal of good was done in a short time. The organisation was revived in 1886, and at the end of a year an amalgamation was effected with another branch, known as the Assistants' and Apprentices' Association. The Society was founded with the object of securing legislation for the recognition of chemists and druggists, with the result that a Bill was ultimately passed through Parliament effecting the desired reform. In 1898 the British

Pharmaceutical Conference met in Belfast. The Society combined with the members of the Pharmaceutical Society in providing a hearty welcome for the visitors. That was

large assembly of members of the trade. The Society's headquarters in Garfield Street have for some time been inadequate, and with an increasing membership improved accommodation was necessary, and accordingly a move was made to Waring Street, which is one of the leading business thoroughfares in the city. The rooms are well furnished and equipped, and will meet the wants of the members in every way, particularly in the matter of holding meetings of the Society. Prominent in the rooms are large portraits of three deceased members of the trade who in their day were at the head of the trade in Belfast—viz., Mr. William Dobbin, J.P., Mr. Thomas McMullan, and Sir James Haslett, who, up till his death last month, was President of the Society. The rooms (really one divisible into two) will be specially serviceable for assistants who can spend their evenings there; indeed, classes are to be held in them. Five local wholesale houses have agreed to present a complete set of the chemicals, drugs, and preparations of the British Pharmacopœia, and a library has been started with a complete set of THE CHEMIST AND DRUGGIST books.

At the opening ceremony Mr. John Frackelton (who has taken a great interest in the movement) presided, and the attendance included Messrs. W. Jamison, M.C.P.S.I., Samuel Gibson, W. C. Dobbin, J. Hardy, M.P.S.I., S. Suffern, Jacob Walsh, Joseph Walsh, L.P.S.I., Frank C. McMullan, J. A. Shaw, W. J. Busby, Wm. Lyttle, S. McDowell, J. W. W. Agnew, M.P.S.I., and W. J. Rankin (Hon. Secretary)



THE COMMITTEE OF THE SOCIETY IN THE NEW ROOM. (For names of members see p. 537.)



FLASHLIGHT PHOTOGRAPH OF THE OPENING MEETING. (Photos. by Hogg.)

the means of bringing the two Societies together, and ever since they have worked in absolute harmony.

Mr. William Jamison, M.C.P.S.I., then formally declared the rooms open. He said they had long been looking for-

ward to that meeting. Through the energy of their worthy Chairman they were now able to meet in their own rooms, and he knew that they would make the very best possible use of them. It was not intended to use the rooms exclusively for social entertainments. Business meetings would also be held in them, and it was intended to exhibit samples of articles used in their business, and to establish an educational library. (Hear, hear.) If the young men in the trade would use the rooms, he was sure that it would be of advantage to them when they had to undergo their examinations, and they would be well fitted to succeed those who now carried on the trade.

During the evening a musical programme was gone through, the performers including Messrs. James Smith, Joseph Walsh, J. W. W. Agnew, Briggs, Walker, and Carse. Mr. Scott was the accompanist.

The first photograph on p. 536 shows the members of the Committee sitting in the new room. The names of the members are as follows:

Back Row (standing) (from left to right).—S. Acheson, A. R. Hogg, W. J. Busby, William Martin, Horace Haslett (son of the late Sir J. H. Haslett), J. D. Carse.
Second Row (sitting).—S. Saffern, S. McDowell, J. McConkey, J. Brown, William Lyttle, S. Gibson (Hon. Treasurer), W. J. Rankin (Hon. Secretary), William Jamison (Vice-President), M.C.P.S.I.
Third Row (sitting).—Jacob Walsh, John Tosh, J. Williamson, J. H. Shaw, William Doig (Vice-President), M.C.P.S.I., John Frackolton.

Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," September 20, 1905.)

- "BYLAX"; for photographic chemicals, apparatus, and paper. By W. F. C. Kelly, 22 Winchendon Road, Fulham, and J. A. Bentham, 51 Claverton Street, London, S.W. 274,640, 274,641, 274,642.
- "GERMOL" ("Germ" disclaimed); for chemicals in Classes 1 and 3. By Read, Holliday & Sons, Ltd., 11 Cambridge Buildings, Huddersfield. 275,243, 275,244.
- "SAFEGUARD" (disclaimed) and label device of soldiers guarding a fortress; for carbolic soap. By George Mence Smith, 69 Southwark Street, London, S.E. 268,615.
- "PHENOZOL"; for liquid disinfectants other than soap. By D. Waldie & Co., 1 New China Bazar Street, Calcutta. 266,213.
- "MICROMORT"; for disinfectants. By the Holborn Co., 276 Ashton New Road, Beswick, Manchester. 275,459.
- Device of an emerald; for fertilisers and cattle-foods. By Paul & Vincent, 5 Blackhall Place, Dublin. 274,352, 274,354.
- Label device of blood-corpuscles and signature "The Hæmatogen Co."; for hæmatogen. By the Hæmatogen Co., 43 Great Tower Street, London, E.C. 273,379.
- "LINBROC"; for chemicals in Class 3. By A. F. Baron, Ivy Cottage, Prittlewell, Essex. 275,093.
- "KRYPTOK"; for lenses, spectacles, and eyeglasses. By P. J. Sartain, 212 West Logan Square, Philadelphia, U.S.A. 274,875.
- "REVIVOSE" and cross and circle device of sun rising over the sea; for electro-medical apparatus. By Electro-Medical Supply Co., Ltd., 61 New Cavendish Street, London, W. 271,515.
- "LUCIEL"; for dental plates. By L. Eilertsen, 132 Boulevard Magenta, Paris. 275,048.
- "MALICO" ("Malt" disclaimed); for foodstuffs, excluding infants' and invalids' foods. By the Maltico Food Co., 2 London Road, Kingston Cross, Portsmouth. 274,218.
- "WHITE RAVEN" and device of a white raven with a tin in its claws; for candles, soap, detergents, etc. By Lever Bros., Ltd., Port Sunlight, Cheshire. 274,183.
- "TUNGCHIA" (disclaimed) and device of a Turk smoking a hookah, and Chinese characters; for a perfumed soap. By A. Oppenheimer & Co., 32 Hamsell Street, London, E.C. 272,244.

Chemists at Cambridge.

After lunching, they met in the Guildhall. The Mayor presided, and made a good speech on the company question. He was followed by Mr. S. R. Atkins, who suggested that chemists will have to modify their legislative demands. Several speakers were inclined to be pessimistic, and Mr. Peck, winding up the talk, said that retail pharmacy and the drug-trade will ultimately be divided into dispensing pharmacists and commercial chemists. Then they had tea.

A MEETING promoted by the Pharmaceutical Council was held at Cambridge on Thursday, September 21, chemists of the counties of Bedford, Cambridge, Huntingdon, Norfolk, Northampton, and Suffolk having been invited to attend. Among those present were Alderman A. S. Campkin, J.P., Mayor of the city, Messrs S. R. Atkins, Richard Brembridge, E. Saville Peck, B. S. Campkin, H. F. Cook, E. H. Church, H. F. Flanders, E. W. Moss, J. Evans, J. Palmer, C. C. Greensmith, A. Deck, E. Field,



A. SYDNEY CAMPKIN, J.P.,

Mayor of Cambridge, and Member of the Pharmaceutical Council.

R. Sturton, J. T. Mallett, and J. West Knights (all of Cambridge), W. J. Field (Southend-on-Sea), C. A. Coles (Halstead), J. T. Sunman, J. H. Webb, and E. Hall (Luton), F. G. Sturton and J. Prior (Peterborough), J. Cooper (Sawston), F. C. Barton (St. Ives), T. D. Robinson (Haverhill), C. B. Smith (Potton), W. J. Young (Harston), F. A. Barrow (Newmarket), F. W. Cannon (Baldoek), W. Spencer Turner (Willingham), A. Holdgate and C. E. Male (Cottenham), F. Oldham (Wisbech), W. J. Hanner (Southwold), Owen A. Clark and A. G. Gamble (Bury St. Edmunds), R. J. Marshallsay (Thetford), Joseph Farr (Yaxley, Peterborough, and Lowestoft), and J. S. Prior (Stamford).

A reception of the visitors was held at noon at the Lion Hotel, where luncheon was subsequently served. Mr. E. S. Peck presided, and briefly welcomed the guests.

AFTERNOON MEETING.

Later in the afternoon a meeting, over which the Mayor, wearing his chain of office, presided, was held in the Council

Chamber of the Guildhall. Alderman Campkin, having explained the object of assemblies of provincial pharmacists and extended a warm welcome to members from the various districts, delivered an address. He hoped that the scheme which the Council had formulated during the past year would have the effect of bringing chemists more closely together and securing that unity of action without which any attempt to obtain the sympathy of the public, or the support of their representatives in Parliament in any legislative proposals, would be alike futile. For many years the chemist had occupied a position of "splendid isolation"; altruism had not been his distinguishing characteristic. It was by

COMBINATION

that the injustice and difficulties under which qualified chemists now laboured would be eventually removed. Although in any constituency they were only a small handful, they were representatives of a class carrying on a most important business, and if the anomalies and injustices which they had to bear were properly understood by the public there would not be failure to assist by any means in their power. All proprietors of retail establishments, whether engaged in pharmacy or other directions, had witnessed a great change, amounting to almost a revolution, in the conduct of their class of business compared with that of a generation ago. The Limited Liability Acts at the time of their introduction were not expected to be applied to retail trade, but were for the safer development of large schemes, such as gas, water, and locomotive manufacturing on a big scale. Now large trading retail companies, financed by non-resident or alien financiers, non-resident directors, managed by strangers, none of whom were known to take the least interest in local matters, largely without family connections or ties, whose positions were temporary, had in many instances

DISPLACED THE SMALLER TRADESMEN,

a class that had done much in the past to promote the prosperity of their localities, and had taken a full share of public and executive, social and philanthropic work in city, town, and country districts. This applied throughout the country. He wished it to be quite understood that chemists had no desire to become monopolists, nor were they actuated by greed or gain. The Mayor then defined the objects of the Pharmacy Acts, and how they had been influenced by the company decision of 1880; dwelt also upon the loss to provincial communities of small tradesmen through their being replaced by employés of companies whose centre of interest is elsewhere. He proceeded to say that the Pharmacy Bill, which would certainly be reintroduced either in the next session or—preferably—in a new Parliament, would, if passed, enable the Society to know who is the actual owner or manager of every chemist's shop in Great Britain, and would make the owner or owners of a business responsible for the illegal sale of poisons under Section 15. He believed, however, that there was another remedy—viz., unity of action, consolidation of co-operation, and efficient legislation. Alderman Campkin criticised the action of the Privy Council with reference to the extension of and addition to the Poisons Schedule, and said the Pharmaceutical Council did not suggest any compromise, but proposed to insist upon the observance of poison regulations, so that qualified persons alone should be responsible for the sale. He then spoke of his work in the Pharmaceutical Council, saying that there is no supineness in it. "Support the Society," said his Worship, in conclusion. "It is your only organisation. Get the public to believe in the absolute justice of your cause, and it is only a question of time before you secure recognition of your undoubted rights." (Applause.)

Mr. S. R. Atkins also spoke on the store system. Pharmacists felt, he said, that the public did not know the facts of the case. If they could only secure from them an attentive hearing they might influence Parliament to legislate for the good of the chemist. He thought they

WOULD HAVE TO MODERATE THEIR DESIRES

and aims with regard to future legislation. Their desert was one thing, but what they would obtain was another. It was too late for him to go into Parliament, but he should like to see the Mayor there. (Applause.) He knew there were tremendous powers against them in the House, where

vested interests both direct and indirect were enormous. But surely, in the face of all the public work to which some of them had devoted their lives, chemists had the right to ask for consideration. (Hear, hear.) If by the means of combinations and syndicates with enormous capital they were going to blot out all the competition of small traders, what would become of a section of the great middle class who ministered to the interests of the public? There were some men among them who had given their whole life to the service of the public, but if most of their successors were to be converted from employers to employés, the nation would lose through those great combines a large part of the service now rendered to the State. (Hear, hear.)

Mr. Bond Smith pointed out that the ignorance of the general public in regard to the nature of the prescriptions they required made it important for the chemist to be a qualified man.

Dr. Young said the essential fact for general recognition was that the true interest of the public was indissolubly bound up with the interest of the chemist in the matter for which legislation was sought. (Hear, hear.)

Mr. O. A. Clark thought that all classes of the community were more or less misrepresented in Parliament. The strongest weapon with which they could fight the vested interests was unity. (Applause.)

Mr. J. W. Webb, alluding to the objection that the abolition of the store chemist would raise the price of drugs, showed that

THE COMPETITION AMONG PHARMACISTS

would be sufficient to prevent such a result.

Mr. Holdgate was pessimistic as to the future of the small village chemist. Since the arrival of a store in the county town his trade had suffered a severe decline. Nevertheless, he did not know what people in the rural districts would do but for the country pharmacist.

Mr. Prior urged that chemists should strive for the whole of their just deserts. He would not succumb to the companies without a struggle.

Mr. E. S. Peck maintained that the best way to achieve unity was to form local associations. He strongly objected to a system whereby men whose qualifications had been gained by severe training and examinations were classed with companies whose directors knew nothing about the technicalities of the calling. Examiners, he observed, were accused of being somewhat too severe, and it was complained that the pass-lists were too small. But, as the advertisement columns of that week's CHEMIST AND DRUGGIST and another journal showed that the proportion of qualified men applying for situations was about three times greater than the number of those applied for, he thought it was obvious that there were sufficient qualified men for present purposes. He believed it to be probable that pharmacy would in the future be divided into those who made the dispensing of physicians' prescriptions their chief work, and those who looked at the commercial side. The latter branch would be, no doubt, the more lucrative. In conclusion, he proposed a vote of thanks to the Mayor for his able address.

Mr. Sturton (Peterborough) seconded the proposition, with which was incorporated the names of Mr. Atkins and Mr. Bremridge.

Acknowledgments having been made, tea was provided by the Mayor, and parties of visitors briefly inspected a few places of interest. The local arrangements—or, rather, those responsible for them—worked excellently.

BELGIUM exported 8 tons of drugs to the Straits Settlements in 1904, compared with 1 ton in the previous year; and the Belgian imports of similar goods from that source amounted to 8 tons in 1904, against 6 tons in 1903.

SALT INDUSTRY IN THE UNITED STATES.—In 1900 there were 159 establishments engaged in the production of salt in U.S.A., says Mr. F. L. Blanchard in "Printer's Ink." The amount of the output was 15,187,819 barrels and its value was \$7,966,897, an increase of 45 per cent. over that of 1890. The amount of capital invested was \$27,123,364. It was Lemoine, a French Jesuit explorer, who, in his journal published in 1655, first called attention to the existence of salt springs in western New York. The first salt made by white men in the United States was produced in the Onondagan district in 1788. Salt is now found in thirty-two States, and is turned out in considerable quantities in fifteen—Michigan and New York taking the lead.

Winter Session of Chemists' Local Associations.

The Business Done.

Cheltenham is in the happy position of having a balance of over 10*l.* to get rid of, but the members do not attend the meetings well. Leeds opened the forty-fourth session with a *Conversazione*, at which Mr. Worfolk, the President, delivered an address. He considers that the Government will not give up the medicine stamp-duty, and thinks it would be bad for registered chemists if it did. He further stated that the direct representation of chemists in Parliament will be discussed by the Association, this subject being the Federation's winter topic.

Cheltenham Chemists' Association.

THE annual report has just been circulated to the members, and shows a balance in hand of 10*l.* 18*s.* 1*d.* from receipts of 19*l.* 5*s.* 6*d.* The membership continues to be well maintained, but the meetings are not so well attended as the committee would like. Thirteen general meetings have been held since the Association was formed, and the annual meeting and dinner in January were a decided success. The Association has forwarded a donation of two guineas to the Pharmaceutical Benevolent Fund. It has also been decided to give a prize to any apprentice or assistant in the employ of a member of the Association who may obtain the Jacob Bell Scholarship, the value of the prize to be decided by the committee. Two members of the Association have offered prizes for the best collections of botanical specimens collected by any member of the Association between May 1 and October 31 in any year.

Leeds Chemists' Association.

THE forty-fourth session of this Association was opened on September 21 with a *conversazione* at Ashby's Café, Leeds, which was largely attended by members and their friends.

An interesting display was made of museum and other exhibits relating to chemistry and pharmacy, and there was some excellent music.

The President (Mr. G. W. Worfolk, of Ilkley) took advantage of the occasion to deliver his

PRESIDENTIAL ADDRESS.

He said they naturally felt some satisfaction in the knowledge that their Association was one of the oldest of the provincial bodies concerned in pharmacy. The Association had been fortunate in having as its founders such men as Reynolds, Smeeton, Ward, and Yewdall, men who saw the needs and aspirations of their brethren, and who laid the broad and solid foundation upon which the superstructure had risen and flourished. In its earlier days the Association accomplished much good by means of its educational lectures and classes, and all along the museum and library have been kept up to date, these being now inheritances



MR. G. W. WORFOLK.

of which they had just reason to be proud. But times had changed, and at present their work seemed to be chiefly of a political and social nature. Alluding to the topics of the Brighton Conference, he said one matter was with regard to the breaking of bulk and to the alteration of the Medicine-stamp Acts. When they thought of the counter interests and the influence which others could bring to bear upon the authorities they could not but see the risk which would attend any alteration in the law. The Government would never consent to relinquish an income of 330,000*l.* per annum, and if they, as educated and qualified persons, demanded to be relieved from this form of taxation, it was not at all improbable that their chief competitors would also be relieved, and their last state would be worse than the first. Besides, why should they wish to encourage the sale of these proprietary articles at all? If they, as pharmacists, were supposed to know all about the doses and action and methods of com-

bination of drugs, why should they lay themselves out to assist any unqualified man or firm to exploit a patent medicine about which they knew next to nothing? What was more degrading to a man's respect for himself and his calling than to be asked to supply a penny powder and a drink of water to be consumed on the premises? Who but a chemist would do it? His idea always was that every chemist should sell and be responsible for his own powders. He did not mean those with his own name printed on in three-dozen lots, but his own *bona-fide* mixing, preparing, and putting up. Another subject which would be brought before them was the creation of the fund to help in securing the

DIRECT REPRESENTATION OF PHARMACY

in the House of Commons. It was pointed out that all important trades and professions have their own representatives in the House nowadays, and that the pharmacist is at a disadvantage in that he must depend upon some member not actually connected with the drug business to see after his interests. It has been suggested that an annual subscription of 10*l.* from each association, together with subscriptions from wholesale houses and others in a large way of business, would be sufficient to secure the election of a pharmacist to Parliament. If by such means the passing of a Pharmacy Bill could be made more sure, chemists certainly ought to give the question their most serious thought. In regard to the question of affiliating local associations and federations to the Pharmaceutical Society, after the manner of the local branches of the British Medical Association, this, said Mr. Worfolk, would be one way of securing territorial representation and might result in a larger membership; but it appeared to him that this would be secured only by a loss of independence, and that it is quite possible that they might be doing more valuable work as associations, or as federations of associations, than they could do as branches of the Pharmaceutical Society. Perhaps the increased activity of the Pharmaceutical Society up and down the country was really a sequel to the increased activity and interest shown by individual associations. The address finished with a reference to some of the features of the syllabus for the new session, the President urging the members to be jealous for the reputation of the Leeds Association, pointing out that lethargy or weakness in any one member increased in some degree the weakness of the body corporate.

AWARD OF PRIZES.

The President then distributed the Bowman prizes to the successful students—Mr. C. H. Hampshire, Mr. H. B. Healey, Mr. F. A. Westbrook, and Mr. J. R. Horn. These prizes, he said, were given by Mr. W. P. Bowman, a member of the Association, to encourage students and assist in providing them with books. It was very gratifying to state that Mr. Hampshire has also won the Bell scholarship, and he was sure they would all join in wishing Mr. Hampshire a continuance of the success which he has gained.

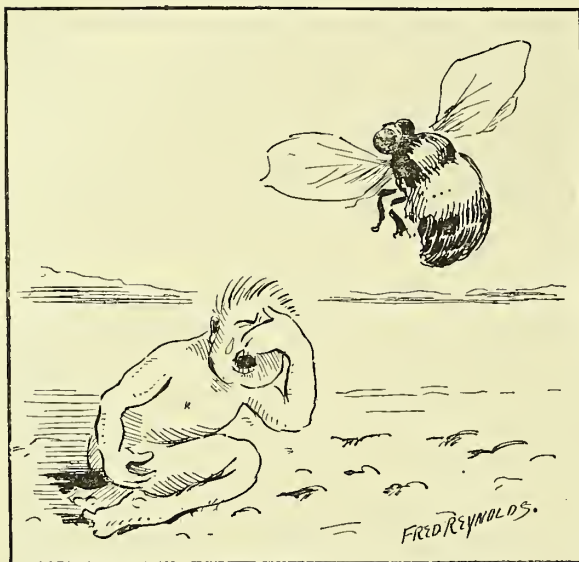
Federation of Local Pharmaceutical Associations.

A MEETING of the Executive Committee of the Federation was held in London on Wednesday, September 20. There were present Messrs. W. L. Currie (chairman), R. Feaver Clarke, H. Antcliffe, and H. Wippell Gadd (Hon. Secretary and Treasurer). The annual circular was discussed, and the Secretary was instructed to issue the same at the earliest possible date.

The Secretary reported that he had been asked as to whether the sale of certain preparations by unqualified vendors does not infringe the Pharmacy Act. He was instructed to draw up a report on these, and send the same to the Secretary of the Pharmaceutical Society for consideration by the Law Committee.

The question of the direct representation of pharmacy in Parliament was very carefully considered, and the committee ultimately decided to submit three resolutions bearing upon this question to the local associations for discussion, and very strongly to recommend them to pass the same.

Conundrum Column.



WHAT EVENT IN CHEMISTRY DOES THE ABOVE REPRESENT?

WRITE your answer on a post-card in the form of a Limerick or other verse, and post to the editor so that he may receive it not later than Wednesday, October 4. A shilling will be paid for each post-card utilised in this column.

The poets did not succeed well with the last picture, which represented the chemists' inn—i.e., The Pestle and Mortar. Some got near it; others put quite curious interpretations in their verses, as the samples show:

Messrs. Royal, Navy & Co. require
More assistants, therefore they wire
To town straight up,
For the C. & D. Supp. F. F. C.

Brings good replies in by the quire.
A jolly Jack Tar—on his mettle,
With pipe, baccy, beer, on a settle—
Thinks life is sublime;
But the chemist you'll find
At the sign of the Mortar and Pestle. J. WALKER.

On a bench outside the "Pestle and Mortar"
A jolly old sailor did loiter.
Just home from the sea,
Though as full as can be,
He still cries for whisky and porter. JAMES D. CARSE.

"I sit and croak on a single joke
I have, which is to say,"
Oh I'm the gold, of the drugman bold,
And the food that feeds his hack;
I keeps his kids and his missus too,
And puts clothes on the boss's back. D. A. (Aberdeen).

From the fountain of knowledge he'd sucked,
And felt sure he couldn't be chucked;
But the finking form shook
As our friend "took his hook,"
For the President said "You are plucked." H. S. B.

There lived a chemist named Jowler,
Who was a regular growler;
He said to his wife,
"I am tired of life";
So he took some liquor Fowler. GERTRUDE E. M. FARRER.

Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

A New Class of Compounds.—Standinger ("Berichte," 1905, 38) has prepared a compound by the interaction of chlorine and diphenylchloroacetic chloride and sodium, which has the formula $(C_6H_5)_2C:CO$. This is the first compound of a new series which is termed the keteno series, the above body being diphenyl-ketene.

Turpentine from Larix Europæa.—Rabak has examined the oleoresin from *Larix europæa* grown in America, and finds ("Pharm. Rev." 1905, 44) that it has sp. gr. 1.004 at 22°, and opt. rot. +46° 29'. The acid-value is 60. By distillation with steam 13.5 per cent. of an essential oil was obtained, consisting chiefly of pinene, of sp. gr. 0.867 at 22° and opt. rot. +2° 36'.

Celluloid.—It is said that borneol, in a more or less impure condition, as made by the hydroxidation of camphene, can be used as a very efficient substitute for camphor in the manufacture of celluloid. One kilogram of dry nitrocellulose is mixed with alcohol, and 500 grams of borneol or isoborneol, dissolved in 500 grams of ethyl acetate, is added. The celluloid is finished off in the usual manner.

The Preparation of Camphor.—A patent has been taken out by Boehringer and Söhne ("Chemiker Zeitung," 1905, 962) for the preparation of camphor from isoborneol. Isoborneol (15.4 kilos.) is dissolved in benzene (16 kilos.), and shaken at ordinary temperatures with a solution of chlorine (7.1 kilos.) in water (900 litres). The oxidation is almost quantitative, and the camphor can be recovered from the benzene solution.

Urea Derivatives.—A patent has been taken out in America for the preparation of alkyl oxy-acetyl urea, depending on the condensation of alkyl oxy-acetic esters with urea and alcoholates of alkalies. Diethyl-oxy-acetyl urea is prepared from the corresponding ester, and forms an oily liquid with strong hypnotic properties, sp. gr. 1.1107, boiling at 186° under a pressure of 36 mm. Its formula is $C_8H_{12}N_2O_5$ ("Chemiker Zeitung," 1905, 961).

New Remedies.—*Indoform* is the product of the reaction between formic aldehyde and acetyl-salicylic acid. It is a white powder, very slightly soluble in water, with an acid and astringent taste, melting at 108°-109°. It is decomposed by alkalies, when it gives off formic aldehyde. It is suggested as a remedy for gout and rheumatism. *Jothion* is a di-iodo-hydroxypropane, and is recommended as a useful body where the absorption of iodine is required. *Orocitral* is a combination of theobromine and sodium citrate. It is a white powder, soluble in water, and has a diuretic action.

Decomposition of Chloroform.—Imbert, as the result of his experience in the Hôtel Dieu at Marseilles, publishes a note on the decomposition of chloroform-vapour which is often distinctly observable in operating-theatres. He comes to the conclusion that it is due to the contact of the vapour with a flame, either of gas or the fire. He considers that oxychlorido of carbon and hydrochloric acid are formed in traces, and even traces of chlorine and carbon monoxide, which are inhaled by the patient if near at hand, and produce bad effects. [Sir William Ramsay came to the same conclusions years ago.—EDITOR.]

The Analysis of Vanilla.—Balland ("Pharm. Central," 1905, 688) gives the following figures for three samples of vanilla from different countries:

	1	2	3
	per cent.	per cent.	per cent.
Water ...	19.80	20.70	13.70
Ash ...	2.85	3.20	4.70
Fat ...	10.00	14.70	11.30
Sugar ...	14.20	17.80	18.50
Ether extract ...	30.41	17.66	38.64
Fibrous matter	16.90	20.20	8.20
Nitrogen matter	5.94	5.74	4.96

The ether extract consists of vanillin and waxy and fatty bodies.

Citronella Oil.—The bulk of the citronella oil exported from Ceylon is, as is well known, adulterated, and pure oil is quite the exception. But, apart from this, it is admitted that pure citronella oil does not equal the fine products distilled in Java and Singapore, the latter containing up to 85 per cent. of geraniol and citronellal, against 60 to 65 per cent. in the pure Ceylon oils. We have, however, recently received some samples of really pure Ceylon distillates, which, although not perhaps equalling the fine Java oils, are as fine in odour as, or perhaps finer than, any Ceylon oils we have seen. The oil is free from that characteristic harsh odour of the commercial product, and contains in the neighbourhood of 70 per cent. of geraniol.

LAST YEAR Belgium imported from the United Kingdom 1,099 tons of drugs and 31,665 tons of chemical products, which figures compare with 1,463 tons and 39,989 tons respectively in 1903. On the other hand, Belgium exported to the United Kingdom last year 39,608 tons of chemical products, a decrease of 10,667 tons, and of drugs there were exported 2,175 tons, or a decrease of 785 tons as compared with the previous year.

Observations and Reflections.

By XRAYSER.

The High Court of Cape Colony

does not allow itself to be hampered by legal technicalities. In the test case brought against Messrs. Heynes, Mathew & Co., a photographic film had been brought from them, and the prosecution contended that in selling this the firm had gone outside their business as chemists and druggists, and ought to have taken out a general dealers' licence in addition to their chemists' licence. The Acting Chief Justice finds that a photographic film is a chemical, and comes within the scope of the chemist's licence. But he does not waste time and money by giving judgment in the defendants' favour, which would naturally follow this finding. He knows they want to go further and sell all sorts of things, so he nips the litigation in its bud, and confirms the conviction against the appellant firm, thus settling the real question at issue with sensible despatch. The Cape chemists ought to be thankful for an obliging judge like this. They wanted a definite decision, and it was better to get it at once than piecemeal, which is the way we have to get Acts interpreted in our courts at home.

West Ham

has still an open mind on the Widows' Clause. I wonder what West Ham chemists would say if they were brought face to face with the assurance that on an early date this provision would be repealed; that the logicians of debate had triumphed, and that Parliament had consented to accept the sacrifice. "We could then go forward with clean hands and demand that the proprietor of every pharmacy must be qualified." Certainly we could; and we should probably find ourselves in the position of the dog who has dropped his substantial piece of meat in the pond in his effort to seize the shadow. A business bringing in a net income of 300*l.* or 400*l.* a year may be worth 1,000*l.* or more; at a forced sale it might not realise much more than half its true value; and the proceeds would yield to the widow some 20*l.* a year instead of 200*l.* This is not a fancy sketch; it is actuarial fact, and would happen to hundreds of us if it were not for the protection of the Widows' Clause—that is, if the Act were enforced, which it would not be for long. But then, asks the logician, how can we expect legislative interference with companies which are only doing what the law permits our executors to do? The answer is simple. The Pharmacy Act set up an ideal, and carried it out as far as possible. But the inevitable incident of death had to be considered and provided for, and this prevented the ideal being perfectly attainable. Some paltering with immortal principle was unavoidable; but there is no reason why companies should be allowed to palter with it at their own sweet will.

Grocers' Assistants

want the burden of examinations. Their tea-blending, bacon-cutting, lard-packing, window-dressing, and other competitions at the Agricultural Hall last week must have been interesting, and calculated to develop their smartness. They are also trying some experiments in technical classes at Manchester, Brighton, and perhaps elsewhere; but the most effective incentive to the educative movement will be the prize of 500*l.* which, as mentioned in the report of the exhibition last week, has been promised by Mr. Bowman, the head of the firm of Goodall, Backhouse & Co. The intention of the donor, I understand, is that this handsome round figure shall be used to start in business the grocer's assistant who shall come out top in a technical examination to be held in 1908. There is something beauti-

fully practical about Mr. Bowman's scheme; it is a refreshing change from medals and scholarships, and the best of it is that it will detach the attention of some hundreds of young men from the silly competitions which certain of our famous journalistic Napoleons have made so familiar, and perhaps, too, from the worse than silly study of the handicaps. The 500*l.* is all to go to one competitor, but it will leave the others with a neat little stock of useful knowledge pertaining to their business which probably they would not otherwise have acquired.

Trade has been Bad

for some years without doubt. All classes, it is said, have been short of money, and this has been generally attributed to the extra taxation. People must have been living very close up to their incomes if a little additional strain such as this can seriously pinch them. But in fact the immense majority of customers are obliged to allow the smallest possible margin. The remarkable increase of export trade attested by the monthly returns is no criterion of the home trade, and may indeed be to some extent a reflex of slackness of internal business. But experts are sure just now that an improvement is setting in. The great industries are mostly well employed; the revenue has considerably pulled up during the past quarter; country cheques, which, unlike London cheques, are not under the influence of Stock Exchange vicissitudes, have been cleared in larger proportion of late, and, most conclusive of all, the railway returns of the past six months indicate a steady and universal increase of goods traffics. Altogether prospects are brighter, and all we want now is a reduction of 2*d.* in the income-tax and a dull time in foreign affairs to make us all cheerful.

Mr. Van Schoor

adds an interesting confirmation of Hooper's theory that the word "calomel" was originally applied to ethiops mineral by his quotation from Stephen Blancard. "A beautiful black" is a rather gushing expression to apply to sulphide of mercury, but no one will dispute that it fits that chemical better than it does the chloride. But it must not be overlooked that Blancard's Lexicon was published a century after the term had been used for the white powder, so that a much earlier reference to its use as a synonym for ethiops mineral is still desirable before we can be confident that this was the true derivation. Blancard may have only guessed or he may have made a simple blunder, and Dr. Hooper probably simply copied from him. Still, it is a score.

The Boots Prospectuses

were so exhaustively and I think fairly criticised last week that nothing remains to say about them. But I notice with interest that one of the keenest of the financial journals, the "Investors' Review," takes much the same view of the advertisement as the *C. & D.* Commenting on the accountant's certificate in the case of the Pure Drug Co. the critic says: "A certificate like this is worse than useless, and let a business be never so prosperous an invitation to the public to risk their money in it should impose an obligation on the directors to issue a plain straightforward statement of the actual position." Then noting that the figures given seem to show that the Southern Co. has not done badly, he adds: "The secrecy preserved as to its balance-sheet and financial position are, therefore, all the more inexcusable." Of course no experienced investor needs this caution. To him 6 or 7 per cent. is a danger signal to begin with; and when he finds it associated with such reticence as has been alluded to he takes no further interest in it.

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The "Sanitas" Co., Lim.,

are the exclusive Manufacturers of the well-known Non-poisonous

"SANITAS" PREPARATIONS.

They also Make and Deal in

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Kingzett's Patent Drain Testers, Sheep Dips, Weed Killer

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No. 1 Finest Pure CRUSHED LINSEED	16/ * cwt.	Finest Pure STARCH POWDER	22/ * cwt.
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No. 1 Finest Pure FULLER'S EARTH (Light Colour)	15/ * cwt.	Finest Levigated "WHITE EARTH" (Toilet purposes).	18/ * cwt.
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Editorial Comments.

Future Pharmacy Legislation.

The Widows Clause.

THIS phrase, commonly applied to Section 16 of the 1868 Act, is excusable because the section is really described in the Act as "clause," an oversight on the part of the draftsmen of Parliament, which justifies the continuance of an otherwise inaccurate description. Section 16 was designed to reserve the rights of certain persons, and after providing for apothecaries, veterinary surgeons, patent-medicine makers and dealers, and wholesale dealers, the section proceeds:

Upon the decease of any pharmaceutical chemist or chemist and druggist actually in business at the time of his death it shall be lawful for any executor, administrator, or trustee of the estate of such pharmaceutical chemist or chemist and druggist to continue such business *if* and so long only as such business shall be *bona fide* conducted by a duly qualified assistant, and a duly qualified assistant within the meaning of this clause shall be a pharmaceutical chemist or a chemist and druggist registered by the registrar under the Pharmacy Act or this Act.

In none of the Bills considered by Parliament before 1868 did this provision appear. It occurred for the first time in the Bill prepared by the Pharmaceutical Council in 1868, and we need not go beyond that time and circumstance. Parliament accepted the proposition without any attempt

at amendment, and even the word "clause" was allowed to go without changing, as is usual, into "section." Three points deserve consideration before the relation of the enactment to the company problem is discussed. First, Section 15 enacted that no person shall sell poisons except qualified persons; therefore the Legislature knew that the selling of poisons in the business of a deceased person would, as in other businesses, be conducted by qualified persons. Upon this follows the second point—viz., that the clause imposed upon any executor, etc., to appoint a qualified person to *bona fide* conduct the business, not, be it noted, to sell poisons merely, but to be the supreme head of the business, the conductor in all respects like the deceased chemist. At the time the clause was drawn there must have been chemists who had more than one shop, so that the word "business" in the section is not the equivalent of "shop"; therefore, in cases where a business comprised more than one shop, Section 15 in effect placed an assistant in each for the sale of poisons, and Section 16 required a qualified person to *bona fide* manage or conduct the business of all the shops. *It is this important principle which is desired to be extended to companies by requiring the managing director thereof to be a qualified chemist.* We know that this statement is novel, but we submit that on careful consideration of the proviso beginning with the word "if" (italicised in the quotation), and the fact that Section 15 already provided qualified vendors, the assistant in Section 16 was introduced to take the place of the qualified head of the business. This is not lacking in support when the third point is considered—viz., the definition of "qualified assistant." The framers of the Act knew, and had in their minds all through, that the men who up to the end of 1868 were under the 1852 Act "assistants," were to become the qualified persons of the 1868 Act. Section 6 refers to the qualification of assistant—i.e. chemist and druggist—so Section 16 declares that a qualified assistant for the purpose of that "... clause shall be a pharmaceutical chemist or a chemist and druggist." Without this specification it might have been argued that a pharmaceutical chemist is not eligible to manage the business of a deceased chemist, but it is as important to observe that the phraseology does not necessarily imply the literal or ordinary meaning of "assistant"; the context gives support to the suggestion here made, while the words "*bona fide* conducted" are the fullest sense of the proposal in the Pharmacy Bill that companies should be managed by qualified chemists.

It is most unfortunate for the trade that this view of the matter has never been taken by the Pharmaceutical Council or their legal advisers before and after the 1880 decision. Instead of this, there has been an intermittent demand for the repeal of the widows clause, so as to "put our own house in order" before dealing with companies. It is also unfortunate that the Pharmaceutical Council, as the administrators of the Act, have permitted abuses of the widows clause which might easily have been stopped. Many businesses of deceased chemists have been continued long after the estates have been realised, and others are *bona fide* conducted by the executors rather than by the qualified assistants. When the company case came before the House of Lords in 1880, Mr. Benjamin, on behalf of the Society, used the widows clause as an argument that this is the only instance in which the Act permits the business of a chemist to be carried on under unqualified ownership, and the other side made little of it; but it was left to the Lord Chancellor to use the clause in support of his judgment that companies of unqualified persons may carry on the business. We, of course, note that nowhere in the argument or judgment did the view which we have presented occur. The net result of the decision, so far

as the widows clause is concerned, was that the interpretation of it assisted the catastrophe, and when the Pharmaceutical Council drafted a Bill in 1881 the following clause was included:

Notwithstanding the provisions of Section XVI. of the Pharmacy Act 1868 it shall not be lawful for any executors administrators or trustees of a deceased pharmaceutical chemist or chemist and druggist to continue the business of such pharmaceutical chemist or chemist and druggist for a longer period than three years unless by permission of the Council of the Pharmaceutical Society of Great Britain.

Since then leaders have frequently said we shall never get company legislation unless the widows clause is sacrificed. The most recent suggestion is that made by Mr. C. B. Allen at the last annual meeting of the Society. He proposed that words should be inserted in Section 16 providing that the business of a deceased chemist shall not be continued unless at least one of the executors is a registered chemist. Discussion in respect to the legislation on the question will, no doubt, resolve itself on the one hand into support of either of these proposals, and on the other hand we shall have opposition based, as hitherto, upon the benevolent protection of the chemist's widow and family. The view which we now present should not, however, be neglected. There is a possibility latent in the widows clause as powerful as that in Section 15 as regards sale of poisons by assistants, which was not enforced until the decision in *Pharmaceutical Society v. Wheeldon* was obtained in 1890. That case was taken somewhat reluctantly by the Pharmaceutical Council; yet in the result it has been the most useful interpretation of the law, and has done more for the progress of qualification in pharmacy than anything else. By stricter enforcement of the widows clause the Council may stop abuses which have given companies an argument against the qualified directorate requirement; and although it may be difficult to wipe out the results of thirty-seven years' comparative inaction in regard to the *bona fide* management of businesses in trust, there are both power and principle in Section 16 which justify the Council in asking Parliament to extend them to limited companies by requiring a qualified managing director.

The Sight-testing Opticians Bill.

THE British Optical Association is again taking steps to introduce into Parliament the Sight-testing Opticians Bill referred to in our issue of December 24, 1904, when we gave an abstract of the measure. Since then a lot of water has flowed under London Bridge. The Bill which was brought forward last year was delayed because it was felt that it would be advisable that any Bill dealing with sight-testing opticians should be promoted jointly by the several bodies which have taken upon themselves the regulation of the craft. As a result the General Board of Opticians was brought into being, which embodies the representation of the British Optical Association, the Spectacle-makers' Company, the National Association of Goldsmiths, the Society of Chemist-Opticians, the Optical Society, and some provincial optical associations, being nicely adjusted according to their supposed influence in the optical trade. The Board has held a good many meetings, but seems to have fallen into the error at the very first of electing a working committee without any reference to the balancing of parties, with the result that the members of the British Optical Association felt that they were being jockeyed by the other predominant partner—the Spectacle-makers' Company. This feeling was intensified when a group of Parliamentarians, who were consulted about an Opticians Bill, advised the General Board of Opticians that the Bill would stand a much better chance of success if the registration

and examination of opticians were confined to one body. Moreover, the Board, after considering the advice tendered by members of Parliament, passed a resolution making the Spectacle-makers' Company the examining and registering body. The result is that the British Optical Association has resolved to promote, independently of any other body, the Bill of last year. By this Bill a Council of Optical Registration is to be created, and is to consist of (1) four persons appointed for three years by the Privy Council, (2) four by the British Optical Association, (3) four by the Spectacle-makers' Company, and (4) four elected by registered opticians. In the case of the Spectacle-makers' Company it is provided that the Company must give notice to the Privy Council that they desire to be represented on the Council of Optical Registration, that being, apparently, a consequence of the somewhat strained relations that exist between the promoters and the S.M.C. The Bill leaves it with the Council of Optical Registration (which, following medical precedent, would be better known as General Optical Council) to decide what examinations shall be considered as qualifying for registration; and there is the provision, usual in such Bills, of registering persons without examination who have been *bona-fide* engaged in the practice of sight-testing. The protected titles are "Sight-testing Optician" and "Optologist," and the offence proposed to be created under the Act is the use of "the name or title of sight-testing optician, or any other name, title, designation, addition or description . . . implying" registration. A registration fee of 10s. 6d. is to be paid up to May 1, 1906, after which date a fee not exceeding five pounds may be charged. The Association has not profited by the experience of chemists, dentists, and doctors in regard to the assumption of personal titles by limited companies, for no provision is made to prevent the use of the titles by corporations, but it is not too late to make a suitable provision before the Bill is put in charge of a member of Parliament for introduction at St. Stephen's.

Local Government.

THIS week the 1904 reports of the Local Government Boards for Ireland and Scotland have been published. Both are, as usual, bulky volumes, dealing chiefly with public health and poor-law matters. We may appropriately consider them together.

The total expenditure of parish councils in Scotland for the maintenance and relief of the poor during 1903-4 was 972,079*l.* Of this sum 61,332*l.* was spent

Scotland. on "medical relief," but nothing is said in the report of the amount actually paid for

medicines. The most interesting portion of the report is the four pages devoted to the administration of the Sale of Food and Drugs Acts. This first deals with the methods employed to spur on defaulting authorities to take samples. During the year public analysts were appointed in five counties and sixteen burghs, and one analyst was removed from office. A form of return was issued by the Board in which could be entered "test" samples of food and drugs taken informally by the public analyst with a view, in cases where such samples were found to be adulterated, to taking samples afterwards with the formalities required by the Acts. In the opinion of the Board there is nothing in the Acts to prevent any person or authority from obtaining a sample informally and analysing it. They are advised that Section 14 of the 1875 Act is not in any sense overridden by recourse to informal sampling. That is in the nature of the obvious; but if this practice is to grow, dealers will need to observe carefully that these informal

purchases are not made use of before any legal tribunal, for notification to the seller of the purchaser's intention to have the article analysed by the public analyst is a condition precedent to prosecution under the Act. The authorities, therefore, have no right to use informal purchases for the purpose of prosecution. With regard to samples found to be over-strength, the following case is cited:

During the year a local authority drew our attention to the exceptional circumstances connected with the analysis of a sample of laudanum purchased from a registered chemist. On being analysed it was found to contain morphine, reckoned as anhydrous 1.56 gram in 100 c.c., while the British Pharmacopœia states that laudanum or tincture of opium should contain an amount of morphine, reckoned as anhydrous, not exceeding 0.8 gram in 100 c.c. As pointed out to us the ease was a very unusual one, and the mistake in the strength of the drug might have involved serious danger to life, but the Procurator-Fiscal, after careful consideration of the matter, came to the conclusion that the case did not come within the scope of the Sale of Food and Drugs Acts, as in his opinion the sale of a *superior* strength of laudanum was not a sale to the purchaser's "prejudice" in the sense of the Act. We brought the case under the notice of Dr. Thorpe, the Principal of the Government Laboratory, Somerset House, to whom it appeared that, as the sample contained considerably more than the quantity of morphine prescribed by the British Pharmacopœia, a case for prosecution under the Sale of Food and Drugs Acts would arise against the vendor, in respect that the article sold was not of the nature, substance, and quality demanded by the purchaser. The question of prejudice is, of course, an important point in Section 6 of the Act of 1875, but Dr. Thorpe pointed out that, inasmuch as morphine is the chief narcotic element in tincture of opium, it may be held that the purchaser is "prejudiced" by being supplied with an article of twice the official strength. Dr. Thorpe informed us that several prosecutions have taken place in England for excess of one or more ingredients in a mixture of drugs, but that, so far as he was aware, these were under Section 7 of the Act of 1875 as being compounded drugs. He, however, stated that a case was pending at Sheffield in which an article sold as a compound liquorice powder was found to contain a larger proportion of sulphur than that prescribed by the British Pharmacopœia. We communicated with the Justices' Clerk at Sheffield, but were informed that the defendant in the case died before it was disposed of.

Apparently, therefore, the question, in Scotland at least, is as yet in abeyance. The total number of samples examined during the year by public analysts on behalf of local authorities was 7,991, of which 7,396 were taken formally and 595 were "test" samples. Of the former, 667, or 9 per cent., and of the latter, 121, or 20.3 per cent., were adulterated. The samples of drugs taken numbered 263 only, of which 32, or 12.2 per cent., were declared to be adulterated, 5 of the 32 being reported as "of doubtful purity." The genuine samples of drugs included one each of citric acid, compound liquorice-powder, citrate of magnesia, ethyl acetate, extract of malt, Gregory's powder, magnesia, sulphonal, sulphur, tincture of nux vomica, and tobacco (!); two samples of compound tincture of rhubarb; three of Epsom salts; four each of cigarettes (!), paregoric, and ipecacuanha-wine; and seven of castor oil. Of 126 samples of cream of tartar examined, seven were adulterated, three being deficient in acid tartrate of potassium to the extent of 3 per cent., 3.4 per cent., and 7 per cent. respectively; one contained 15 per cent. of hydrated sulphate of lime, another 0.28 grain of lead per lb., and two were reported of "low quality." Prosecutions were instituted in two of the seven cases, but both actions were withdrawn. Of twenty-two samples of camphorated oil examined, three were deficient in camphor to the extent of 2 per cent., 10 per cent., and 18 per cent. respectively. One prosecution was instituted, but withdrawn. Four out of nineteen samples of linseed-meal were condemned on the ground of deficiency of oil in amounts varying from 1.31 per cent. to 3.92 per cent. Nineteen samples of cod-liver oil were examined, of which five were "of doubtful purity." Two of a total eight purchases of sweet spirit of nitre were

found deficient in ethyl nitrite to the extent of 5 per cent. and 14 per cent. respectively. Prosecutions were instituted in both cases, with the result that there was no conviction in the one case, and the other was withdrawn. One sample of tartaric acid (out of eight examined) contained 0.84 grain of lead per lb. Five out of seven samples of laudanum were adulterated, three being deficient in alcohol and two containing excess of morphine. Two samples of glycerin contained arsenic—1 part in 65,000 parts in the one case and 1 in 45,000 in the other. Four other glycerins were genuine. One sample (of six taken) of seidlitz powder was reported to be adulterated on the ground that "the four blue packets were too heavy, 70 grains; and the four white packets were too heavy, 70 grains." The only sample of lime-water examined was 12 per cent. deficient in lime. Four "test" samples of drugs were taken, and all were genuine, as were two samples of cream of tartar examined at the instance of private individuals. These results compare most favourably with England and Wales.

The annual report of the Local Government Board for Ireland details the very miscellaneous duties which fall to the share of this department; for instance,

Ireland. there are elaborate forms and methods of obtaining seed-potatoes, and these are followed by detailed tables of results obtained, one form having a column headed "Feelings of Ratepayers," which contains such entries as "No longer used," "Farmers and labourers well pleased," "Not highly valued." The part of the report which concerns the drug-trade is that dealing with the supply of medicines to the unions, under which head it is stated that—

The arrangements under this head continue to work satisfactorily, and the galenical preparations supplied were again found to be of good quality. Out of 9,534 samples analysed only 315, or about 3.3 per cent., were found in any way defective, and very few of these latter could be described as bad. The schedule of standards for pharmacopœial preparations which had been in operation for two years has been revised, and some slight but necessary alterations have been made therein. The competition for contracts was even more keen than in previous years, with the result that the average rate of abatement given on the prescribed prices was 31½ per cent. for Medicines and 30 per cent. for Appliances, as compared with 20 per cent. and 22½ per cent. respectively in the year 1903-4. The scrutiny of the medical officers' requisitions has been continued during the year, and shows further evidence of economy in the ordering of drugs, etc. It is satisfactory to note that the total expenditure under this head is over 7,000*l.* less than in the year 1902, when the scrutiny was first undertaken by us, and although a considerable portion of this saving is due to the larger discounts offered since that date, yet there is no doubt that a substantial reduction has been effected owing to the economy exercised by medical officers in requisitioning drugs. We are of opinion that if medical officers generally could be brought to realise the importance of preventing waste, an additional saving could be effected. We have directed the special attention of our medical inspectors to the question of the expenditure for medicines, and requested them to impress our views upon the dispensary medical officers on the occasion of their annual inspections of dispensaries.

In the body of the report Mr. J. E. Brunner, advising pharmacist to the Board, gives details of the work done in his department, of which the above is a summary. The rate of discount allowed by medicine-contractors was from 17 to 43½, an average of 31½, per cent. off the standard list. The discount on medical and surgical appliances averaged 30 per cent. The revised schedule of standards, which was printed in the *C. & D.* earlier in the year, is given in an appendix of the report. In regard to the analysts' reports on samples of drugs, in 3,024 certificates there were 315 defective samples; but what seems to require looking into is why one analyst finds one defective sample in four whilst another only reports one defective sample in twenty.

Selachoides.

[In the Ipswich "East Anglian Times" a long report of "Chemists in Conference" at Cambridge is immediately followed by a paragraph headed "Sharks off Lowestoft."]

O CRUEL, O cruel, "East Anglian Times,"
Thou blighter of honest ambition,
To lend thyself thus to the greatest of crimes,
Invidious juxta-position.
How thinkest thou Mayor of Cambridge must feel;
His agony nothing can spare us;
Thou surely must see that his blood would congeal
If placed next a *Mustelus vulgaris*.
O wicked, O wicked, "East Anglian Times,"
We scorn thy suggestion subtle;
The nearest approach (though suggestive of mimes)
To a pharmacist-fish is the Cuttle.
He may dabble in oils of the liver of cod,
But thy vision is clean out of focus;
For never East Anglian chemist that trod
Could be called a *Carcharias glaucus*.
O careless, O careless, "East Anglian Times,"
Thou surely dost think me a bumpkin;
For even a meek perpetrator of rhymes
Hath respect for a Peck, and a Campkin,
A Young and an Atkins, a Clark and a Smith,
And though they may scare Pharmacy, I
Must protest that it clearly is forging a myth,
To class them with *Selachoides*.

The U.S.P.

The Board of Trustees is apparently afraid that members of the Revision Committee have used proof sheets in compiling "comments or other publications," for we have received an official resolution stating "that such comments or publications shall not be offered for sale until the U.S. Pharmacopœia shall have gone into effect." September 1 is the date referred to, but as copies of the U.S.P. were available in June for the purpose of comment, the Board's resolution cannot be regarded as prohibitive, and is certainly somewhat belated.

South African Native Dispensers.

To the "Lancet" for September 23 Dr. Neil MacVicar, of the Lovedale Mission, Cape Colony, communicates an article on the question of a medical training for natives of South Africa. He believes that—

a training in dispensing, vaccinating, ambulance, anti-septics, anaesthetics, nursing, and hospital work generally would produce a class of native assistants likely to be useful in dealing with native patients, and especially in the wards and dispensaries of native hospitals; and if to these subjects were added instruction in the nature and prevention of disease these native assistants might do most useful work as sanitary inspectors and health teachers among their own people. Such a class of native assistants might receive official recognition, being called dispensers, hospital assistants, or some other title which would indicate plainly their position. A diploma of a kind, a hospital diploma, might be given them.

It is unnecessary to refer to the details of the scheme of two years' training in a hospital which he propounds, as the interest to our readers lies in the suggestion that natives who go through the course should be called "dispensers." This opens up a big range of possibilities in which the Pharmacy boards of the Colonies are directly interested, and we trust that they will watch the developments, if any.

A "Family Doctor."

An ignorant person signing himself "Family Doctor" writes rubbish to the "Weekly Scotsman" addressed to "people who wear glasses." For pure drivell it would be hard to beat, but the annoying part of it is that this writer, who is apparently quite ignorant of sight-testing and spectacle-fitting, goes out of his way in his endeavours to injure chemist-opticians. Here are some specimens of "Family Doctor's" advice:

No one whose vision is imperfect should wear glasses of any description unless these have been ordered by a medical man well qualified to test the eyesight. The eye is too im-

portant an organ to trust in the hands of an optician, surgical-instrument maker, or chemist. How often does one see the legends displayed in shop windows, "We prescribe spectacles," or "We test the eyesight"; but alas for those who are misled by such boasts! It is impossible for anyone, save a medical man, to know exactly what strength of glasses to order. Very few of the general public know that in order to properly fit a patient with glasses a long and special training is required. It is not the easy matter the optician and the chemist would lead one to believe. It means a very thorough knowledge of the eye, such as neither of them can be expected to possess. . . . Don't be misled into thinking that a chemist will give you a properly adjusted pair for two or three shillings. He knows nothing at all about the eye, and still less about testing the eyesight. Moreover, he does not care whether the glasses suit you or not. His object is purely and simply a mercenary one. He sells glasses; that is all.

In fairness to the medical profession we ought to add that the writer of the article which accompanies the above remarks is an unusual type of "doctor," and we have never met with a medical man so appallingly ignorant both of sight-testing and of the functions of chemists. The public can be safely trusted to form their own judgment as to where best to obtain spectacles: it would only raise a laugh if one were to suggest to the man in the street that he should visit the "family doctor" when requiring aids to vision.

Turkish Customs Regulations.

Importers of British drugs into Turkey, who have for many years experienced great difficulty in obtaining admission for their goods owing to their not being in accordance with the French Codex, have now a further impediment placed in the way of their business by the issue of the new Customs regulations, which have just come into force. These regulations provide for the examination, *inter alia*, of all chemical and pharmaceutical preparations and specialities on importation at the principal Turkish ports, and a perusal of the said regulations leaves no doubt that the authorities are determined to crush trade if possible by hampering it with vexatious restrictions. The first examination and analysis of goods at the port of importation is to be carried out gratis; but if the goods are found to be adulterated, or injurious in any way, their importation is prohibited. If the owner likes, a second analysis can be made within thirty days by paying the fees in advance, but in each case it would probably be money wasted. At the end of each month the head chemist at the laboratory at Constantinople will furnish a list to all branch Custom-houses of the products which have been analysed and allowed to be imported, so that it will not be necessary to examine these goods again. The importation of drugs and medicines whose composition is not known is forbidden. If, however, such drugs have been recognised by a "public academy," or any other official department, the importation will be permitted, if the certificate and the sample, together with a statement of the component parts of the composition (in this case the separate quantities are not necessary), are placed before the Customs authorities, and the chemists, after analysis, state them to be not injurious. The importation of specialities containing any of the following is not permitted: Cocaine, sulphide-combinations, Koch's anti-tuberculosis serum, "Cocculi di Levante," picrotoxin, cannabis indica. The importation of chemicals used in the manufacture of explosives, such as potassium chlorate, sodium chlorate, potassium nitrate, picrates, nitro-glycerin, gun-cotton, etc., is prohibited. These Customs regulations practically cover the Turkish Empire, as may be judged from the fact that in addition to the head laboratory at Constantinople, branch laboratories are to be established at Smyrna, Salonica, Trebizond, Scutari, Beirut, Alexandria, Bussora, and Tripoli; and where there are no analytical chemists, the analyses will be carried out by the district doctor, who will be under the control of the nearest official laboratory.

Thorseradish-root.

By W. A. KNIGHT, Ph.C.

ALTHOUGH this drug is chiefly employed as a condiment in this country, it is still largely used in medicine, and it is a somewhat curious fact that no illustrated account of its structure has yet appeared in any English text-book. The plant (*Cochlearia Armoracia*) is a native of Eastern Europe, but is largely cultivated in this country.

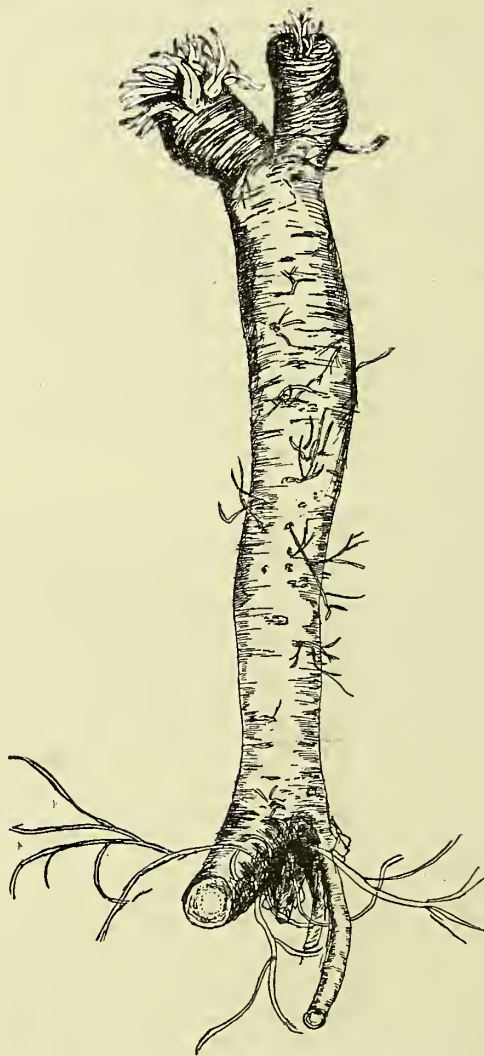


FIG. 1.

Megascopic Characters.—The root (fig. 1), which is a perennial, often attains a length of over two feet and a diameter of about an inch. It is enlarged in its upper part, where it often divides into several branches, each surmounted by a tuft of leaves. Below the origin of these leaves are numerous leaf-scars. Beneath the enlargement of the upper end the root becomes more or less cylindrical or slightly tortuous for the greater part of its length, and finally divides into several branches. Thin rootlets are given off from all portions of the root. The outer surface is yellowish or brownish-white and the fracture is short and fleshy. If the white fractured surface is cut level with a knife, the cambium ring is seen as a dark line traversed by radial lines in the outer (phloem) portion and by radial lines and by indistinctly concentric rings in the inner (xylem) portion.

If a few drops of acid solution of aniline sulphate are placed on the cut surface, the xylem vessels appear as minute

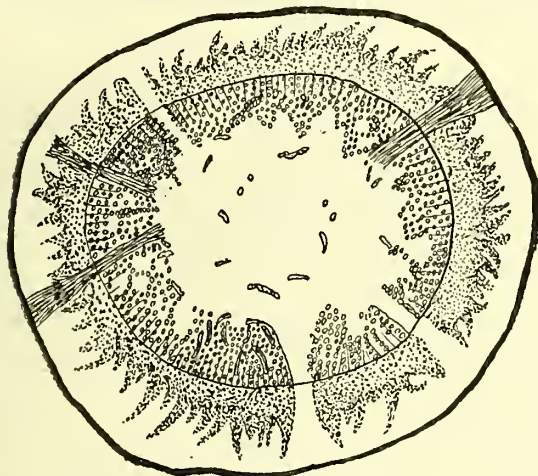


FIG. 2.

yellow points. A well-defined pith is present in the upper portion of the root (fig. 2), but is absent in the lower cylindrical portion (fig. 3).

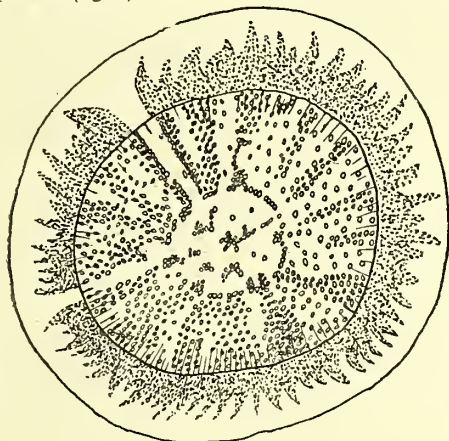


FIG. 3.

Microscopic Characters.—The transverse section (fig. 4) shows:

- (1) Periderm, formed of several rows of tubular cells (PER.)
- (2) Two to four rows of tangentially elongated collenchymatous cells (COLL.).
- (3) A cortical parenchyma of rounded cells, among which may be observed schlerenchymatous cells (SCL.), either isolated or in small groups.
- (4) The phloem consists of wedge-shaped bundles of small cells (PHLO.).
- (5) The cambium (CAMB.).
- (6) The xylem consists of pitted vessels (XY.VESS.), of varying diameter, arranged in radial rows in a parenchymatous tissue. The vessels are united in groups of varying size. In the cylindrical part of the root, where the pith is absent, the radial rows of vessels meet at the centre of the root, and here the first-formed xylem elements (PR.XY.) may be seen, arranged in a stellate manner. When pith is present they form a ring round it.

(7) The medullary rays (MED.R.) are very wide.

Cell-contents.—Throughout the parenchyma are numerous oval or rounded starch grains with central elongated hila; some of the cells, however, contain no starch, but proteid granules. Occasionally rosette crystals, soluble in hydrochloric acid, may be seen, but they are not numerous.

If a section is kept in alcohol for some time, sphaeraphides (SPH.) are deposited in the parenchyma. These do not

appear to be inulin, as they are not appreciably affected by hot water. They are readily soluble in caustic potash and are probably hesperidin. Myrosin occurs in many of the parenchymatous cells, and may be detected by the violet colouration produced by heating a section in concentrated hydrochloric acid containing 1 per cent. of orcin.

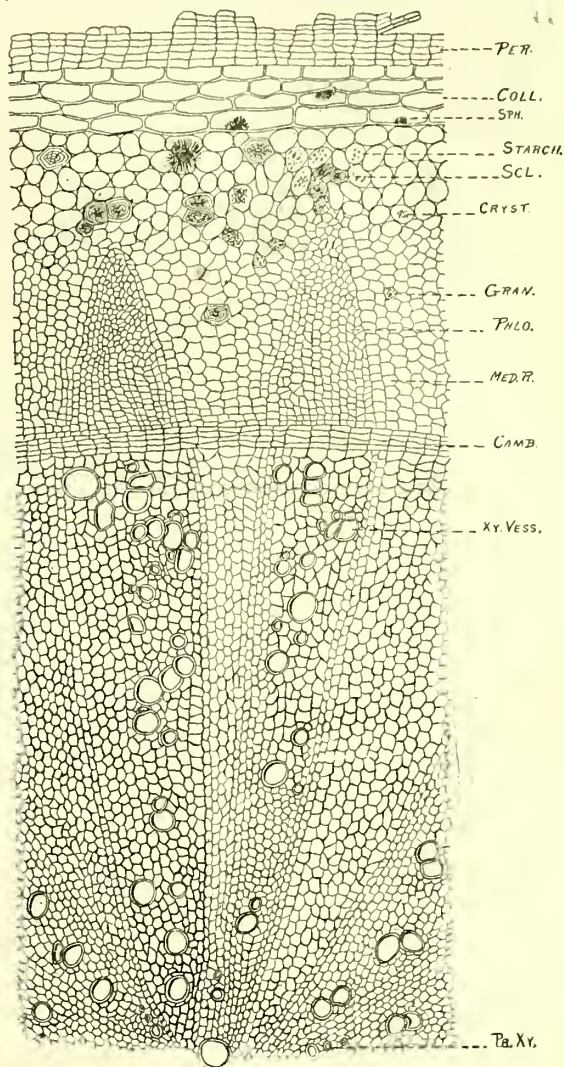


FIG. 4.

Sinigrin may be detected by treating a section with alcohol (which kills the myrosin and removes any fatty oil) and then placing it in an aqueous extract of white mustard-seed (which is rich in myrosin). The resulting oil of mustard (allyl isothiocyanate) is shown by the deep colour produced with an alcoholic solution of alcannin.

New Books.

Gibson, C. R. *Romance of Modern Electricity. Describing in Non-Technical Language what is known about Electricity and many of its Interesting Applications.* 7 $\frac{1}{2}$ × 5. Pp. 343. 5s. (Seeley.)

Henslow, Professor G. *The Uses of British Plants, Traced from Antiquity to the Present Day.* 7 × 4 $\frac{3}{4}$. Pp. viii. + 184. Illus. 4s. 6d. net. (Reeve.)

Metchnikoff, Elie. *Immunity in Infective Diseases.* Translated by Francis G. Binnie. 9 $\frac{1}{2}$ × 6 $\frac{1}{4}$. Pp. 608. 18s. net. (Camb. Univ. P.)

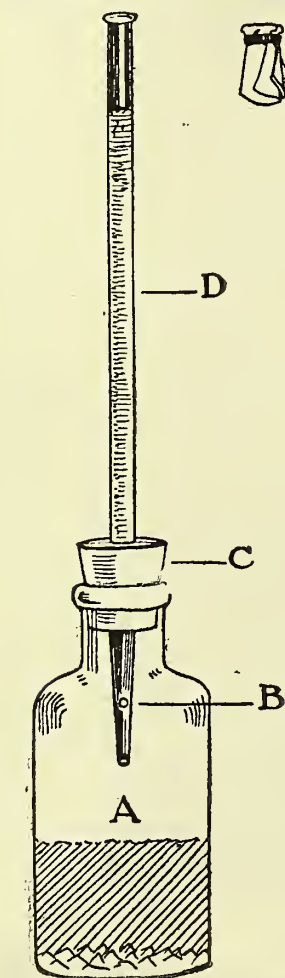
Morton, E. R. *Essentials of Medical Electricity.* Cr. 8vo. 4s. 6d. net. (H. Kimpton.)

Sabin, L. C. *Cement and Concrete.* 9 $\frac{1}{2}$ × 5 $\frac{1}{2}$. Pp. 518. 21s. net. (Constable.)

An Effective Method of Applying the "Gutzeit" Test for Arsenic.

By C. A. HILL, B.Sc., F.I.C., and H. S. COLLINS.

BY common consent the most reliable and satisfactory method of detecting and determining small traces of arsenic is the Marsh-Berzelius test in one of its modern forms. Analysts who have constantly to check the arsenic in certain chemicals, however, naturally prefer as a routine method one which is more expeditious and requires little or no attention. For such routine work many



THE APPARATUS (scale $\frac{1}{2}$ size).

A. Wide-mouthed bottle; B. Orifice in glass tube; C. India-rubber stopper; D. Roll of lead filtering-paper inside tube; E. Cap of mercuric-chloride paper to fit over tube with india-rubber band.

upper end being slightly widened so that the diameter here is 8 mm., while the lower end is drawn out and a small hole blown in the side of the tube where it is constricted. This arrangement allows condensed moisture to drip back into the bottle while providing a free upward passage for the issuing gas.

A roll of lead-paper 10 cm. in length, prepared by soaking white filter-paper in a 10-per-cent. solution of lead acetate and subsequently drying, is placed in the tube and pushed down till its upper end is not less than 2 cm. from the upper end of the tube; this has been found to be more effective than plumbised cotton-wool. The mercuric-chloride paper, which is placed over the upper end of the

tube and secured by an elastic band, is prepared by soaking Munktell's No. 3 filter-paper of 5.5 cm. diameter in a warm saturated aqueous solution of mercuric chloride and subsequently drying.

It has been found that the results obtained are both more uniform and more accurate when the hydrochloric acid used contains a small quantity of stannous chloride. The greater uniformity is due to the two facts (1) that any arsenic present is reduced to the "-ous" state, and (2) that the hydrogen is evolved in a steady stream.

The greater accuracy lies also in the fact that any arsenic present is reduced to the "-ous" state, for thus the results are strictly comparable with those obtained from the standard solution of arsenic, which is made by dissolving arsenious oxide in hydrochloric acid. The strength of this standard solution is such that 1 c.c. = 0.00001 gram of arsenious oxide.

A solution of stannous chloride is easily obtained arsenic-free by mixing the B.P. solution with an equal volume of strong hydrochloric acid and boiling down until all the arsenic is eliminated. The solution, after filtration, can then be made up to its original strength, and is added to the strong hydrochloric acid which is used in these analyses to the extent of 1 per cent.

In performing a test, 10 c.c. of the strong hydrochloric acid (containing 1 per cent. of solution of stannous chloride), 50 c.c. water, and 10 grams of zinc are used, and the action allowed to proceed until effervescence ceases. Working thus, one five-hundredth of a milligram of arsenic, calculated as arsenious oxide, gives a distinctly recognisable yellow stain; this means that working with 10 grams of substance one part in five millions can be detected and estimated.

The delicacy of the apparatus can be still further increased by restricting the area of the top of the tube, and consequently that of the mercuric-chloride paper which is exposed to the action of the issuing gases, but the form described above has been found most suitable for ordinary use.

In the determination of arsenic in iron compounds—as is well known—it is necessary to distil the arsenic, as arsenious chloride, after having reduced it completely to the "-ous" state. Stannous chloride effects this reduction immediately, and thus the lengthy cooking up with potassium metasulphite recommended by Professor Dunstan and Mr. Robinson may be done away with. The process now used in this laboratory for the determination of arsenic in reduced iron—to take an example—is that detailed by one of us in conjunction with Mr. J. C. Umney ("P.J.," October 8, 1904, p. 500), but modified in this way—that after the substance has been dissolved by means of hydrochloric acid and potassium chlorate, stannous-chloride solution is added, drop by drop, until reduction is complete, as seen by the yellow colour of the solution being discharged. The liquid is then distilled.

Davy Hill & Co.'s Analytical Laboratory,
Southwark, London.

AN ARTICLE in "World's Work," by Mr. H. Wippell Gadd, describes "The Calling of a Chemist" as one of the "Careers for our Boys."

RÉUNION ESSENTIAL OIL EXPORTS.—During 1904 the exports of essential oils from Réunion to France amounted to 7,173 gals., against 6,966 gals. in 1903 and 5,111 gals. in 1902.

THE Belgian imports of drugs from India last year amounted to 1,176 tons, against 820 tons in 1903; and the Belgian exports of similar goods to India were 45 tons, or 11 tons less than the previous year.

COPPER SULPHATE IN ITALY.—The British Vice-Consul at Salerno reports that a co-operative agricultural association has been established greatly to the benefit of landowners and peasants, and adds, "its object is to purchase seed, manures, and other things at wholesale prices, and to re-sell them to the peasants in small quantities at considerably lower prices than are charged by the local retailers. These associations do a large business in sulphate of copper, and should be eminently useful to British manufacturers of the article."

Legal Reports.

High Court Cases.

"BROWNIE" FILM MOTIONS.

IN the Vacation Court on Wednesday, September 27, before Mr. Justice Bray, Mr. Underhay (instructed by Messrs. Kerly & Sons) mentioned the case of Kodak, Ltd., *v.* Rees, in which he had a motion to restrain the defendant, trading as the Rees Drug Stores, 98 Bow Road, E., from infringing the "Brownie" trade-mark and from passing off his goods as and for those of the plaintiffs. Counsel said that defendant did not deny one act complained of. They had, however, only received his affidavits that day and he should ask that the motion might stand over for a week on an undertaking by the defendant.—Mr. Galbraith, for the defendant, said he did not think he ought to be asked to give an undertaking. The acts complained of, and in respect of which he had a perfect explanation, took place three and four weeks ago and there was no urgency about the matter. If the case stood over for the convenience of the plaintiffs he ought not to be put under an undertaking.—Mr. Justice Bray said he did not see anything pressing about the matter and thought it was not at present a case for an undertaking.—Mr. Underhay said the defendant had admitted one act.—Mr. Justice Bray: You may be sure nothing will be done for a week. The motion will stand over.

Mr. Underhay also appeared for the plaintiffs in the case of Kodak, Ltd., *v.* Hutchings, which was a similar motion for an injunction to restrain infringement and passing-off. Counsel said in this case the defendant, Thomas Hutchings, chemist and druggist, 411 Mare Street, Hackney, had agreed to treat the motion as the trial of the action; he consenting to a perpetual injunction and to pay an agreed sum of 40s. as damages and costs.

GOLDEN COMPOUND TABLETS.

IN the Vacation Court on Wednesday, September 27, before Mr. Justice Bray, the case of Owen *v.* Owen was mentioned on a motion by the plaintiff for an injunction to restrain the defendant from carrying on business as a chemist and druggist within two miles of 145 Stockwell Road and from circularising old customers of the partnership business carried on at that address for the sale of patent and other medicines. There was also a motion for the committal of the defendant for alleged interference with the receiver of the partnership business, but this, on the suggestion of his Lordship, was not pressed. Mr. Ford, on behalf of the plaintiffs, said his case was that the defendant by his circulars and method of advertising was representing that his business was that of the original firm and that he had been making use of a trade-mark in connection with certain goods sold as "Golden Compound Tablets" for anæmia.—Mr. Pepys, for the defendant, said he was prepared to give an undertaking which would perhaps meet the object of his learned friend, but submitted that no order should be made as to costs, as the plaintiff had failed on a considerable part of his motion.—Mr. Justice Bray said the defendant had advertised in a way he was not entitled to and the plaintiff had a perfect right to come to the court for relief.—After some argument his Lordship gave his assent to a form of undertaking by the defendant agreed upon by counsel in the case.

Sale of Food and Drugs Acts.

MAGNESIA.

At the Wantage Town Hall on September 27, before Colonel Carter and Commander Hazel, Messrs. Clegg & Sons, chemists, Wantage, were summoned under Section 6 of the 1875 Act for selling magnesia not of the nature and quality demanded.

The Berks County Council, who prosecuted, were represented by Superintendent Smith, of the Wantage Police, Messrs. Clegg & Son being defended by Mr. W. S. Glyn-Jones, instructed by Messrs. Neve, Beck & Kirby, for the Chemists' Defence Association.

Mr. Smith said that on August 23 he asked Mr. Clegg for 3 oz. of magnesia, and paid 6d. for what he received. He

sent it for analysis to the Berkshire County Analyst, and had received a certificate that the article was not magnesia but carbonate of magnesia. Cross-examined by Mr. Glyn-Jones, witness stated that he bought Gregory's powder and milk of sulphur from the defendants at the same time and they were right. He did not buy these things on his own initiative, but by instructions, and knew nothing about the properties of magnesia. He did not know there are at least four different kinds.

Mr. Glyn-Jones, addressing the Magistrates, said that the case was as technical as anything could be, and that as the prosecution were insisting on technicalities, they ought to have been more precise in the documents they had sent his clients.

In the copy of the analyst's certificate it was alleged that Messrs. Clegg's magnesia was composed of 43 per cent. of magnesia and 57 per cent of water and "carbolic" acid. His clients had also ground for complaint in that the prosecution had not used the exact British Pharmacopœia name when ordering the article. He read the B.P. names, and submitted that the prosecution must fail unless they proved two things: first, that Messrs. Clegg did not supply what was demanded, and second, that what they did supply was to the prejudice of the purchaser. He quoted from "Hoyle *v.* Hitchman" to show that these two conditions are inseparable. If an article superior to that asked for is supplied there is no offence. The prosecution had not proved that they did not get what they asked for or that anyone had been prejudiced. He would call witnesses to prove that the name "magnesia" was first applied to the carbonate in the 1788 London Pharmacopœia and that it had been used in the trade ever since to designate the carbonate when selling to the public. He considered the present prosecution was quite useless, as it was trying to make the public get what they do not really want.

Dr. Loveday, M.R.C.S., L.R.C.P., of Wantage, said he was selected out of 200 candidates as demonstrator at Guy's Hospital in physiological chemistry, and he might therefore claim to know something of the subject. He considered that as an antacid and aperient the carbonate is a much better drug than the oxide, and he had no doubt that is the reason why the public prefer the former. He frequently ordered magnesia for his patients and expected the carbonate to be supplied, the oxide being rarely used—in fact, only as an antidote in poisoning cases. If he ever did want to order it in a prescription he would write either mag. calc. levis or mag. calc. pond., as the case might be; and if he wanted the carbonate he would write mag. carb. levis or mag. carb. pond. If he sent a patient to the chemist's for carbonate of magnesia he would simply tell them to get magnesia.

Mr. Glyn-Jones said he had a number of chemist-witnesses present to prove trade custom, and he called Mr. Lacey, of Abingdon. At this stage, however, the chairman intimated that they did not want to hear any more evidence, as they were satisfied the usual custom had been followed. There was no reflection on Messrs. Clegg, and the case would be dismissed.

County Court Case.

DR. ASTBURY'S PILLS.

At the Hanley County Court on Friday, September 22, before Judge Mulholland, K.C., Geo. Rowley (trading as C. James & Co.), wholesale druggist and drysalter, of 11 Russell Street, Shelton, sought an injunction against Cecil Price (trading as Price & Son), wholesale drysalter, of Church Street, Hanley, restraining him from infringing plaintiff's copyright label. Plaintiff also claimed 30l. damages.

The plaintiff's case, as outlined by Mr. T. B. Sproston, solicitor, was that he was the owner of a copyright label for pills, registered on August 11, 1905. The label was a yellow one affixed to boxes of pills, and bore the advertisement: "Dr. Astbury's pure herbal pills. Worth their weight in gold. Price 2s. 9d. per box. Dose, 3 or 4 at bedtime." Defendant, he alleged, had used a label in connection with his business, for boxes containing pills, which so resembled his own copyright label and other labels used by the plaintiff in his business as to be calculated to deceive, whereby plaintiff alleged that he had been prejudiced. Plaintiff further alleged that the defendant had waited upon

his customers and represented that the pills sold by him, to which the labels complained of were attached, were the same as those sold by the plaintiff, whereby he alleged that he had been deprived of considerable custom and trade.

The defence was based on the following grounds: That defendant had not infringed any copyright, as alleged; that defendant's labels were quite different in style, colour, composition, and printing; that the plaintiff's alleged copyright label was not new or original, and was not legally entitled to protection; that the publication of plaintiff's label was a fraud on the public; and that plaintiff, although requested to do so, had failed to supply any particulars of the damages he alleged he had sustained.

Mr. Sproston went on to state that the plaintiff had been preparing pills for many years, and last year he supplied the defendant with them. Afterwards he found that the defendant was supplying pills of a much inferior quality under a facsimile of the plaintiff's label. Defendant went to a man named Cobden, and told him that he supplied Rowley, and that he could therefore supply Cobden at 2s. per dozen less than plaintiff. In this way Mr. Sproston alleged that the plaintiff's trade had been injured. In fact, he alleged, it was practically a commercial fraud.

The plaintiff, in his evidence, produced a recipe for pills known as Dr. Astbury's recipe.

His Honour: Who was this celebrated Dr. Astbury? Where did he live?

Plaintiff: That is a question. (Laughter.)

His Honour: Was there ever a Dr. Astbury?—Not as I am aware of. (Loud laughter.)

His Honour: I have heard of Dr. Johnson and other persons, but I have never heard of Dr. Astbury before, so that Dr. Astbury is a myth, and his "original recipe" is also a myth.

Mr. Sproston: It is a myth that has been in existence for a good many years.

His Honour: Myths are in existence thousands of years. Are the pills purely herbal?

Plaintiff: The recipe is before your Honour.

His Honour: Then I see that the ingredients include calomel and soft soap. Calomel is a very powerful mineral. It seems to me that your description is a fraud.

Mr. Moxon, for the defence, asked what had been infringed.

The Plaintiff: My copyright.

His Honour: Perhaps it is the originality of the lie. (To Mr. Sproston) Am I to be asked to exercise my jurisdiction in favour of a man who practically acknowledges that he has obtained money by false pretences from the public, and to protect the label which covers the false pretences on which he is obtaining the money? If you ask for equitable remedies you must come with clean hands. People know that every word on the label is untrue. The pills contain a large proportion of calomel, the very thing which people who fancy herbal medicines wish to avoid. It is also stated that they are worth their weight in gold. That may be puffery. Then it is said that they are made from a recipe of Dr. Astbury, which may be taken as holding out that he is a qualified medical practitioner—from his original recipe. All this is untrue, and it is all said to enable them to sell an entirely different article for the purpose of getting money.

Mr. Sproston: So long as that label is there it is infringing property which has been the property of the firm for a long time.

His Honour: You have no property in iniquity. "You shall not stipulate for iniquity" is one of our oldest legal maxims.

Mr. Sproston: It does not follow that in compounding the pill the ingredients are used as given in the recipe.

The plaintiff was cross-examined as to whether he knew who Dr. Morton was. He replied that "Dr. Morton" was "Dr. Astbury."

Mr. Moxon: Did you take the names of "Morton" and "Astbury" from two Cheshire villages?—No, I took them from the labels which were in stock when I bought the business.

His Honour: Where do the pills come from?

Mr. Moxon: Are they prepared by Matthews & Wilson, of South London?

The Plaintiff: Some of them are.

His Honour said he knew a medical man who was

approached by a speculator, who said to him: "Will you be good enough to write me out a recipe for an aperient pill?" The medical man asked what he wanted it for, and the speculator said, "Never mind, I will give you 100l." The doctor wrote out the recipe. It cost 100l., and a company was formed, which was making a great deal of money by it. The speculator went to the compilers of the British Pharmacopœia and gave them the recipe. It was called "Dr. So-and-So's original recipe," which, of course, was quite true. That is the foundation of a company with 50,000l. capital.

Replying to the Judge, the plaintiff said that some of the pills were made by Messrs. Wyleys, Ltd. They were made from his recipe. He took it for granted that they were made from his prescription. He admitted that he did not send the same prescription to Messrs. Wyleys, who supplied him with sugar-coated pills. Asked where Dr. Morton came from, plaintiff replied: "He must have come from next door to Dr. Astbury."

His Honour (to Mr. Sproston): You must go to the Court of Appeal for your injunction. I cannot assist you in any shape or form.

Mr. Sproston: I shall not go that far. A statement has been made that the pills were the same which the defendant supplied.

His Honour: How much does he charge per box?

Mr. Moxon: 2s. 9d.

His Honour: You could get the same at Boots for 6d. The plaintiff gets 2s. 9d. out of the public by this puffery. That is the mildest form I can find for it. Now another man comes along, and he puffs. He tells the same lie exactly, so that his lie is just as good as yours. He deceives the public just as readily, and then you say you want damages because he is preventing you having a monopoly of the lie. I nonsuit the plaintiff.

Bankruptcies and Failures.

Re HECTOR GRAY, lately carrying on business as Donald Gray & Sons, 36 and 37 Mineing Lane, E.C.—A first dividend of 3d. in the pound is payable out of the estate, according to an announcement in the "London Gazette."

Re GEORGE CROCKER, 27 Chryssel Road, Brixton, Chemists' Manager.—The public examination of this debtor was held on September 26, before Mr. Registrar Giffard, at the London Bankruptcy Court, the accounts showing liabilities 506l. 1s. 5d. and assets *nil*. In the course of his evidence the debtor stated that prior to December 1892 he traded as a chemist, but then failed, having sustained losses by Stock Exchange speculations. Since then he had been employed as a manager in the same line of business. There was no ground for the suggestion that he had any proprietary interest in the business that he now managed, or that he was indebted to any trade creditors. His present position and liabilities related solely to costs of legal proceedings arising out of Stock Exchange transactions. The examination was concluded.

Gazette.

The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDER.

MacCormac, John S. D., Victoria Street, Westminster, and Westminster Bridge Road, S.W., dental surgeon.

ORDERS MADE ON APPLICATION FOR DISCHARGE.

Doerr, Louis Charles, the younger, Selsey, late Oving, near Chichester, Sussex, formerly Rickford, Hackbridge, and Worpleston, Surrey, manufacturing chemist—discharge suspended for two years ending August 18, 1907.

Marsh, James, Jarrow, Durham, mineral-water manufacturer—discharge suspended conditionally for two years.

MR. WILLIAM JOHNSTON, Secretary of the Chemists' Defence Association, has been interviewed by a representative of the "Daily Graphic" on the need for further restrictions in the sale of poisons.

The exports of crude camphor from Foochow during 1904 amounted to 1,490 cwt. (10,222l.), against 1,362 cwt. (8,287l.) during 1903. Of camphor oil the exports were 744 cwt. (1,380l.), against 624 cwt. (993l.) during 1903.

New Companies & Company News.

SATINITE, LTD.—Capital 5,000*l.*, in 1*l.* shares (2,500 5 per cent. preference). Objects: To acquire the business of a chemical-manufacturer carried on at the Satinito Works, Widnes, to adopt an agreement with H. Whitfield and J. R. Williams, and to carry on the business of manufacturers of and dealers in crystallised sulphate of calcium or other substance, pearl-hardening and chemical-manufacturers, etc. The first directors are W. Brown, J. Craig, T. Clarkson, S. C. Phillips, and J. Barron. Qualification, 50*l.*. Registered office, The Marsh, Widnes, Lancs.

ESSEX VARNISH CO., LTD.—Capital 5,000*l.*, in 1*l.* shares. Objects: To acquire, amalgamate, and carry on (1) the business of a varnish-manufacturer carried on by J. A. Dew at Barking, Essex, as the "Essex Varnish Co.," and (2) the business of paint and general merchants carried on by the said J. A. Dew and G. L. Rogers at 16 Fish Street Hill, E.C., as "Rogers, Lagerwall & Co.," and to adopt an agreement with the said vendors. The first permanent directors are J. A. Dew (chairman) and G. L. Rogers. Qualification 10*l.*; remuneration 350*l.* per annum; divisible. Registered office, Fish Street Hill, E.C.

THOMAS WELLS, LTD.—Capital 100*l.*, in 1*l.* shares. Objects: To carry on the business of chemists, druggists, drysalters, oil and colour men, manufacturers of photographic and scientific apparatus and materials, etc., and in particular to take over the business formerly carried on by the late Thomas Wells at 91 Charlwood Street, Pimlico. The first subscribers are: Mrs. M. A. Wells, 91 Charlwood Street, Pimlico; Miss E. B. Wells, 91 Charlwood Street, Pimlico; Miss J. B. Wells, 91 Charlwood Street, Pimlico; Miss A. M. Wells, 91 Charlwood Street, Pimlico; A. A. Ozanne, 91 Charlwood Street, Pimlico, chemist; T. Wells, 18 West Dulwich Mansions, Turney Road, S.E.; and W. Fuller, 20 Churchill Road, Dartmouth Park, N., clerk. No initial public issue. Registered without articles of association.

SOUTH AFRICAN DRUG CO., LTD.—Registered in Edinburgh. Capital 2,600*l.*, in 1*l.* shares. Objects: To adopt an agreement between the South African Drug Co. and Charles T. Cockburn and others, and to carry on in South Africa and the United Kingdom the business of wholesale, retail, and manufacturing chemists and druggists, etc. The first subscribers are: C. T. Cockburn, 130 Howard Street, Glasgow, chemist; J. Murphy, 130 Howard Street, Glasgow, secretary; W. Mollison, 130 Howard Street, Glasgow, chemist; Mrs. E. Cockburn, 54 Queen's Gate, Glasgow; E. Watson, 170 Argyle Street, Glasgow, merchant; W. B. Cowan, 105 West George Street, Glasgow, merchant; and D. Carnduff, 22 Queen Street, Edinburgh, H.M. Education Service. Table "A" mainly applies. Registered office, 130 Howard Street, Glasgow.

HANDYSIDE'S MEDICINES, LTD.—Capital 1,000*l.*, in 1*l.* shares. Objects: To carry on the business of patent-medicine manufacturers and vendors, chemists, druggists, drysalters, manufacturers and vendors of surgical and optical instruments and appliances, bottle-merchants, pill-box manufacturers, etc. The first subscribers are: Miss A. L. Warburton, 3 West Avenue, Gosforth; Miss M. A. Robertson, Alnmouth, Northumberland; E. L. Bates, 6 Prudhoe Street, Newcastle, solicitor; C. C. Harrison, 31 Crudders Terrace, Bensham, Gateshead, cashier; R. B. Smith, 26 Windsor Terrace, Gosforth, Newcastle-on-Tyne, merchant; R. Crosier, 7 Gordon Avenue, Gosforth, Newcastle-on-Tyne, manager; J. W. McClarence, 20 Grosvenor Gardens, Newcastle-on-Tyne, clerk. No initial public issue. The first directors are not named. Registered office, Picton Terrace, Newcastle-on-Tyne.

Births.

KEALL.—At 68 West Hill, East Putney, on September 27, the wife of John Keall, chemist and druggist, of a daughter.

MACMASTER.—At 46 Polwarth Gardens, Hyndland, Glasgow, on September 18, the wife of Thomas Macmaster, chemist and druggist, Partick, of a son.

Marriages.

HASTINGS—DOHERTY.—On September 13, at Gilnahirk Presbyterian Church, by the Rev. D. S. Ker Coulter, B.A., Robert Hastings, registered druggist, of Newcastle, County Down, to Rose Field Doherty, of Killyleagh, County Down.

LEADBETTER—STEWART.—At Lumphinnans Farmhouse, Cowdenbeath, on September 20, by the Rev. Thos. Dewar,

assisted by the Rev. D. Brown, David Alexander Bisset Leadbetter, chemist and druggist, Lochgelly, to Nellie, the youngest daughter of Mr. Hugh Stewart, farmer.

ROBBINS—POCOCK.—At St. Peter's, Belsize Park, N.W., on September 21, by the Rev. R. J. A. Jary, B.A., cousin of the bride, assisted by the Rev. C. L. K. Hockey, M.A., Denis Egerton, youngest son of the late Mr. John Robbins, pharmaceutical chemist, of 57 Warrington Crescent, W., to Florence Sophia Grace, daughter of the late William Archbutt Pocock and Mrs. Pocock, of 9 Belsize Avenue, N.W.

WEIGHT—CHRISTIE.—At St. Barnabas Church, Clapham Common, S.W., on September 20, Samuel Thomas Ford Weight, chemist and druggist, to Florence, only daughter of Mr. James Christie, chemist and druggist, 62 Northcote Road, New Wandsworth, S.W.

Deaths.

ANDREWS.—At 34 Leinster Terrace, W., on September 22, of heart failure, Mary Ann Andrews, of Quebec Villa, Epping, widow of the late Mr. Frederick Andrews, pharmaceutical chemist, aged seventy.

BUCKTON.—At Weycombe, Haslemere, Surrey, on September 25, Mr. George Bowdler Buckton, F.R.S., F.L.S., F.C.S., F.E.S., aged eighty-eight. Mr. Buckton was elected a Fellow of the Chemical Society in 1852 and made several communications to it. He served as a member of the Council from 1855 to 1858, and again from 1865 to 1866. His connection with the Linnean Society was based on his interests as an entomologist.

HUGHES.—At Red House, Llandilo, on September 19, Mr. Thomas Hughes, chemist and druggist, aged eighty-one. The funeral took place on September 22 and was remarkable for the large attendance, which included almost all the gentry of the locality, the clergy of all denominations, and business men. Floral tributes were sent by General Sir James Hills-Johnes, V.C., G.C.B., and Lady Hills-Johnes, Lord Dynevor, the Hon. Miss Rice, and the Hon. Gwenllian Rice, Dynevor Castle; Colonel and Mrs. Gwynne Hughes, Glancothi; Captain and Mrs. Richardson, Glanbrydan Park; and many others.

HUNTER STEWART.—At Edinburgh, on September 22, after a short illness, Anne Maria MacLeod, eldest daughter of the late George Gibson, Edinburgh, and wife of Charles Hunter Stewart, D.Sc., M.B., chemist and druggist, Professor of Public Health, University of Edinburgh.

LE SUEUR.—At Devonport, on September 21, Emily, widow of Mr. Philip Le Sueur, chemist, late of St. Heliers, aged sixty-three. Mrs. Le Sueur died very suddenly while on a visit to a friend at Devonport. At the inquest Dr. Kenrick said death was due to syncope caused by heart and lung disease and probably accelerated by asthma.

MILLIDGE.—At Snodland, Kent, on September 11, Mr. Benjamin John Millidge, chemist and druggist, aged sixty-nine.

QUICK.—At 33 Brixton Hill, London, S.W., on September 21, Mr. John Paul Quick, aged seventy-seven. The late Mr. Quick was formerly the South-West of England representative of Messrs. Barclay & Sons, Ltd., and Messrs. G. B. Kent & Sons, Ltd., but for the last ten years had lived in retirement. At the time of the conversion of Messrs. Barclay's into a limited company, Mr. Quick was appointed a director.

Recent Will.

TOMLINSON.—The will of Mr. Henry Jenkins Tomlinson, of Barton-on-Humber, Lincolnshire, retired chemist, who died on May 13 last, has been proved. He left estate valued at 7,765*l.* 4*s.* 6*d.* gross, and probate of his will, dated August 13, 1904, has been granted to his widow, Mrs. Lucy Maggie Gardener Tomlinson, of Barton. Having enjoyed a life interest in the estate at Walcott and Billingham, under the will of the late Mr. Richard Brand, which reverts to his nieces Betsy Jubb and Emily Jubb, he left to them his premises in George Street, Louth, Lincolnshire, and he bequeathed to Betsy Jubb 466*l.* due to him from her husband. He left the residue of his estate to his wife absolutely.

Personalities.

MR. GEORGE J. SEABURY, of Seabury & Johnson, New York, is expected in London next month.

OWING to indifferent health Mr. Gwilym Evans, J.P., pharmaceutical chemist, has retired from the directorate of the Llanelly Steel Works.

MR. ERNEST J. WRIGHT, chemist and druggist, Worcester, was successful in the recent examinations in sight-testing held by the British Optical Association.

MR. W. J. BARNES, chemist and druggist, Biggin Street, Dover, has been invited to again contest the Town Ward at the forthcoming Town Council election.

MR. G. GODDARD CLARKE, J.P., L.C.C., is to kick off at the opening match on the new ground of the Southern United Football Club at Nunhead on September 30.

MR. A. H. DENCE, of Brand & Co., Ltd., who is the Liberal candidate for Mid-Essex, gave an address at the Young Men's Institute, Brentwood, the other evening.

MR. A. BAUER, Vice-President of Messrs. Bauer & Black, plaster and surgical-dressing manufacturers, Chicago, has been spending his vacation in Europe along with Mrs. Bauer, and visited London last week. He sailed for New York on Wednesday.

Trade Notes.

MESSRS. MILLARD BROS., LTD., are offering a new price-list of electric pocket lamps and other electric apparatus.

MESSRS. F. DARTON & Co., 142 St. John Street, Clerkenwell, London, E.C., have been awarded a "diplome d'honneur" and medal for their exhibit of scientific apparatus at the Liège Exhibition.

BERNARD DUMAS' BRAND of filtering-papers, for which Messrs. Felton & Crepin, 38 Trinity Square, London, E.C., are agents, have been awarded a gold medal and "diplome d'honneur" at the Liège Exhibition.

OPTICAL GOODS.—Messrs. Raphael, Wheway & Redfern, Lt., 77 Clerkenwell Road, E.C., have published a supplementary price-list of field and opera glasses and telescopes, which chemist-opticians should write for.

MESSRS. JOHN BELL & Co., Oxford Street, W., are the subject of a sketch in the "Bulletin of Pharmacy," which includes portraits of Messrs. Walter Hills, John R. Wretts, and E. W. Lucas, who comprise the present firm of John Bell & Co.

MESSRS. LYNCH & Co., LTD., Falcon Square, London, E.C., are offering to the trade a handsome stove for heating the shop. It burns ordinary paraffin oil and they supply it in two sizes, one equal to 100 candles and the other to 300 candles.

MESSRS. BURGOYNE, BURBIDGES & Co., Coleman Street, London, E.C., have been informed by the Secretary of State for War that they have been appointed contractors for the year commencing October 1 for the supply of anti-septic surgical dressings, bandages, etc.

THE LONDON ESSENCE Co., Cambervell Green, London, S.E., have just published No. 6 of their half-yearly reports on the chemistry of and commerce in essential oils. The first part of it deals with the characters and constituents of a number of essential oils, white Peru balsam, and the citral-content of lemon oil. In Part 2 recent researches are described, then follow annotations on the new U.S.P. monographs for essential oils. The report is useful, and any chemist interested can get a copy by writing to the company.

"TABLOID" SURGICAL DRESSINGS.—Our readers will have noticed the announcement in the *C. & D.* last week by Messrs. Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C., of the introduction of compressed bandages and dressings—plain and medicated. We have during this week had an opportunity of examining the packages and materials within them, and are struck with their remarkable compactness, as well as the neat manner in which the packages are finished—a parchment-paper inner and tinfoil outer being used in every case. The

materials are good, and we observe that before compression the fabrics are pleated—e.g. 2 oz. of lint is first folded into two, then pleated in five folds across, and compressed into a flat piece $2\frac{1}{2}$ in. square and $1\frac{1}{8}$ in. deep. A band of stiff paper keeps it in position, and it is then wrapped. The gain in compactness in respect to bandages, gauze, lint, tow, and wool is considerable, but we observe in the case of the wool and lint that the crinkling leaves hardish ridges, which may be a disadvantage if applied to tender surfaces in the dried state, absolute smoothness being in many cases a necessity.

PRIMOIDS.—Since we referred (*C. & D.*, August 5) to these products of Messrs. W. Butcher & Sons, Camera House, Farringdon Avenue, E.C., we have had an opportunity of examining them. Primoids are tablet developers (pyro-soda, hydrokinone, and metol-quinol) and tining



and fixing tablets, and are put up in glass tubes. The tablets dissolve readily when crushed and yield clear solutions, showing that the developing-agents have not become oxidised in the process of manufacture. Primoids are nicely put up in slide boxes and are attractively labelled.

CHRISTMAS PERFUMES.—Messrs. Southall Bros. & Barclay, Ltd., Birmingham, have for years past made a special study of chemists' requirements in perfumes for Christmas trade, and this year they make a step in advance, for the samples which we have examined show artistic development, appreciation of the tastes of the people, and familiarity with the lengths of their purses. It is not possible in a brief note to describe the styles of the perfume-cases, and it must suffice to say that in cheap lines, such as the 6d. to 1s. 6d., there is something attractive and pretty; while the more expensive ones have rich interiors, and the exteriors have variety of colour, design, and decoration, which will appeal to the refined and well-to-do. The perfumes are good and the bottles varied in shape and finish, the pyramidal cut-glass bottles used in the richer cases being an ornament for dressing-tables. Any chemist may judge for himself what these perfumes are by getting a copy of Messrs. Southall Bros. & Barclay's Christmas Perfumery Catalogue, if one has not been sent to him. It contains twelve pages of reproductions, in natural colours, by the three-block process, of the cases—107 altogether—and two pages devoted to the styles of bottles used, besides a price-list which gives full details of the contents. The company again offer assortments A to E each at 20s., carriage paid, but all distinct, so that the five lots represent fifty cases of perfume, which retail at 6d. to 7s. 6d. each.

WHERE TO STUDY.

The following educational institutions are advertising in this issue:

- Muter's School of Pharmacy, 325 Kennington Road, S.E.
- Westminster College of Chemistry, Trinity Square, Borough, S.E.
- Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, S.E.
- London College of Chemistry, 323 Clapham Road, S.W.
- City of London College, White Street, Moorfields, E.C.
- Imperial College of Chemistry and Pharmacy, Imperial Buildings, Ludgate Circus, E.C.
- Central School of Pharmacy, Charterhouse Street, E.C.
- Liverpool School of Pharmacy, 6 Sandon Terrace, Liverpool.
- Glasgow School of Pharmacy, 180 West Regent Street, Glasgow.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

Alternate Sunday Opening of Pharmacies.

SIR,—A wish having been expressed in your journal that particulars should be given of the plan by which the chemists of this city take Sunday duty alternately, I have pleasure in sending you a copy of the notice which is exhibited by each pharmacist, and copies of which are distributed among the local medical practitioners.

Yours faithfully,

H. WIPPELL GADD.

100 Fore Street, Exeter, September 26.

SUNDAY.

HOURS OF ATTENDANCE.

Morning until 10.30 A.M. From 1 to 2.30 P.M.

Evening after 6 o'clock.

Orders placed in Letter Box, or left at Door, will receive prompt attention.

Emergency Chemist on duty *between* these hours.

April 2
 „ 9

[Each sheet is dated thus for three months.]

When completed, see sheet under, which please substitute.

Poppies by Number.

SIR,—We are surprised to read in your note on English poppies (*C. & D.*, September 23, p. 494) that though “in the good old days” they were sold per thousand, they are now “bought only by weight.” We wish they were, as a good deal of trouble would thereby be saved; but in an experience extending over twenty-six years we have never either sold or bought by weight, except as regards “small or crushed” poppies. This, of course, refers merely to the wholesale trade; but only last week one of the largest firms in England wrote us to the effect that it was useless to state the weight per thousand of our poppies (we had been bragging a little about their size), as they were only saleable to the trade by number, and the question of weight was therefore irrelevant.

Yours truly,

Epworth, September 22.

BELL BROTHERS.

The Messina Certificate.

SIR,—Referring to the article on “Citral in Lemon Oil” in your issue of September 2, and especially your comment about the results of Dr. Romeo’s new method of citral-estimation constituting a “powerful indictment against the Messina certificates,” I may be permitted to remark that—to my mind—such a comment, rather than bringing light, increases the confusion that has long existed on this argument. It is enough to glance over the title of the two publications (Dr. Romeo’s and mine) to derive the conclusion that the results of the two methods are not comparable. While Dr. Romeo’s paper deals with “a new method of quantitative estimation of citral,” on the other hand, and in harmony with all my publications, the figures given in my certificates do not apply to citral alone, but invariably refer to all of the various aldehydes contained in lemon oil. And as it is pretty well agreed that—besides citral—lemon oil contains citronellal, octylic, and nonylic aldehydes, I published that the figure of 5.26 per cent. found by Sadtler indicates the quantity of citral alone, and not the totality of the aldehydes contained in lemon oil.

I am, dear Sir,

Yours faithfully,

DR. BERTÉ.

Messina, September 12.

[We may explain to Dr. Berté that what is known in London as “the Messina certificate” is one in which the value of lemon oil is based solely upon citral-content which is unnaturally high and incorrectly determined. This does not include his certificates, apparently.—THE EDITOR.]

“The Uninspired Policy.”

The Rhymester of the *C. & D.*
 Is jealous that true pharmacy
 Its head erect must hold;
 Nor think of filthy *l. s. d.*,
 No uninspired policy,
 Must members dare unfold.

It is not fitting to request
 To raise an issue, lest, O lest,
 Officials feel the shock;
 And as to thinking what is best,
 Our deep reflections e’er we rest;
 These but our mentors mock?

Be ours to watch the shrinking purse,
 And bless our mentors, never —
 Nor naughty restless feelings show;
 To kick against our good old nurse
 Is bad enough indeed, much worse
 To seek to move without the new.

Thus, thus, our lesson we must learn,
 And not allow our thoughts to turn
 From programmes set before us; still,
 Keep up our subs., these we may earn
 “By strict attention,” suggestions spurn;
 “It is our duty, and we will”?

Plymouth, September 25.

ROBERT R. ROPER.

Goods in the Roadway.

SIR,—Can any brother-chemist tell me of a town which has by-laws, approved by the Local Government Board, which prevent the unpacking of goods in the street or exposing goods for sale or otherwise in the roadway?

Yours, etc.,

F. OLDHAM.

Wisbech, September 25.

Grocers’ Examinations.

SIR,—I must confess that it was with a feeling full of malicious satisfaction that I read a few days ago in my daily paper that the grocers were going in for examinations. What more natural than to smile when you see your devoursers making for the rocks which have brought about your own undoing? I well remember the days of fatness, when we took it into our noddles that it would give lustre to our body and security to our commercial future if we were to insist that all who wished to share in the distribution of drugs should submit themselves to examination. It was pretended that this would be a means of commanding the confidence of consumers, who would for ever make their way straight to the establishments whose proprietors could boast of being qualified by examination. Vain delusion! Idle prophecy! The whole scheme in practice has had an opposite result. The people looked askance at this close corporation, and clearly they did not like the smell of it. A situation, too, was created which was a direct invitation to others—drapers, grocers, etc.—to spoil what we had got to look upon as our own preserves. They seized upon the drugs which were no drugs, and with this substantial bait quickly drew towards themselves the customers whom we had alarmed. The developments are only too painfully familiar to need mention. It is my matured opinion that all the preparation for qualification unfits a man for pure commerce, which is really what we must rely upon for pecuniary profit. It makes him resent being called upon to supply so and so’s stuff for this and that, persuaded as he is that he is capable of making up something as good, if not better. But cheer up, my brethren. Presently you will see the double-superfine grocer “by examination” demanding 13½d. for a pound of shilling bacon, and then, if not to the pandering of professional pride, at least to the gratification of greed for gain, you will be able to step in and cut it up for—10½d.!

Yours in all sobriety,

St. Helens, September 25.

SAMUEL WILSON.

The Kinninmont Prize Scheme.

SIR,—I would like to ask whether the original intention of Mr. Kinninmont has been adhered to in the working of this scheme. I find that the prize was instituted “for the encouragement of students of pharmacy in the West of Scotland desiring to take the Major qualification.” So far as I can make out, only two of the first five prizemen took the Major qualification. I happen to know, moreover, that in one of the years embraced in this period there were two candidates for examination, one of whom was a *bona-fide* Major student. This gentleman failed to get the prize, but a few months later he passed the Major examination at the

first attempt. The prizeman on that occasion has not yet, so far as I am aware, even attempted to secure the Major certificate. Of the remaining prizemen I fail to find any record in the files of the "Pharmaceutical Journal." The announcement of the examination appears punctually year after year, but if the results have been published they have appeared in such obscure corners that I have failed to find them. If not trespassing too much on the Hon. Secretary's good nature, would he please state the average number of candidates for this prize during the last nine years, and how many of the prizemen have taken the Major qualification in terms of the expressed wishes of the donor of the prize?

Yours truly,

SCRUTATOR. (72/53.)

[If the writer of this letter had taken the pains to look through THE CHEMIST AND DRUGGIST, he would have found the following announcements of the Kinninmont prize-winners.—THE EDITOR.]

1896 (first year). David Baird Macdonald, assistant to Mr. Hugh Lambie, Crosshill. (*C. & D.*, Nov. 14, 1896, p. 712.)

1897. Mr. Murdoch, assistant with Mr. Miller, Byars Road, Glasgow. (*C. & D.*, Nov. 13, p. 749.)

1898. Martin Meldrum. (*C. & D.*, Oct. 29, p. 693.)

1899. Henry Rodwell. (*C. & D.*, Aug. 12, p. 280.)

1900. James Pinkerton Gilmour, Victoria Infirmary. (*C. & D.*, Sept. 1, p. 372.)

1901. John Hunter. (*C. & D.*, Oct. 19, p. 637.)

1902. Annie M. Barr. (*C. & D.*, Aug. 6, p. 265.)

1903. (No award.)

1904. George Orr. (*C. & D.*, Dec. 17, p. 973.)

1905. Andrew Wood. (*C. & D.*, July 29, p. 160.)]

SIR,—Mr. Barrie's letter in your issue of September 16 *re* Kinninmont prize scheme appears to me to constitute a most unjustifiable attack on Mr. Hill and the Prize Committee; besides, it casts a slur on the metallists themselves.

It is well known that Mr. Kinninmont's original intention in instituting this scheme was to stimulate the taste for study on the part of students who had passed the Minor examination. I maintain that this result has been achieved. Nearly all the metallists have passed the Major examination, and at present one of their number is on the Scotch Board of Examiners. The subjects—namely botany, electricity, and magnetism—were Mr. Kinninmont's own selection. Botany was one of the favourite recreations of this cultured man, and the prize syllabus is therefore practically identical with the work in these subjects scheduled for the Major. I do not for one moment believe that the subjects are distasteful to students, as Mr. Barrie asserts, and I consider that it would be a wrong step on the part of the committee to alter the syllabus—if, indeed, they are empowered to do so. Nor do I consider that a stronger committee than the present could be obtained. There is no secrecy about the examination, and it is perfectly well known that in the event of only one candidate presenting himself the medal is not awarded unless a certain standard of excellence is attained. I think this was the case in 1903, when no award was made. Without doubt there has been a want of candidates of late years, but that holds good in the case of the Bell scholarship and other competitions. Surely Mr. Barrie does not advocate that these be abolished? Certainly I, for one, should be sorry if this were the case.

Yours faithfully,

Glasgow, September 20.

JUSTITIA. (72/90.)

SIR,—I notice that my letter in reference to the Kinninmont prize scheme has brought out three protests in your last issue. . . It has been suggested that I should deal more fully with some of the points raised in my former letter. I would offer the following suggestions to the committee for their guidance, and will be glad to discuss them privately with the committee if they wish it:

Candidates.—To get more candidates to come forward more should be eligible. Instead of confining the competition to qualified men it might be thrown open to unqualified men only, as the Fairchild Scholarship is. In our technical schools throughout the Clydesdale district there are large numbers of chemists' assistants and apprentices, and, if we add those who are attending pharmacy schools, there would be no dearth of candidates, if the subjects were suitably chosen. So long as the competition is confined to Minor men there will be a dearth of candidates owing to their gradual loss of enthusiasm in scholastic matters.

Subjects.—I do not suggest any just now, for if the principle as to candidates be accepted, the subjects will suggest themselves.

Examiners.—In my former letter I suggested that two professional teachers should be appointed examiners. I think so still. It might be necessary to give them a fee for their services; in such a case the competition could be held every two years.

Publicity.—The printed matter sent to inquirers should contain the names of the various members of the committee, also the names of the examiners, as well as the subjects for examination. The CHEMIST AND DRUGGIST would, I am sure, be pleased to insert notices, and the local Press would print at least one notice if sent in the name of the committee. If the young men and women pharmacists thought it was for their encouragement they would very soon make it known to one another, and thus publicity of the proper kind would be obtained without expense.

Yours faithfully,

Glasgow, September 26.

THOS. S. BARRIE.

Commissions to Doctors.

SIR,—I notice in this week's issue of your valuable paper that under Australasian News reference is made to a Secret Commissions Prohibition Bill, which has recently been introduced into the Victorian Legislative Assembly. I would like to point out that doctors do receive commissions from chemists on their prescriptions, etc., in this country, notwithstanding the unqualified denial to the case mentioned by Mr. Mackey in introducing the second reading of the Bill. I am in business in a town in Ireland. Soon after I started I was approached by two of the doctors, who stated that if I gave them the same terms as the man up the street—i.e., half profits on their prescriptions, etc.—I could have their whole support. I declined with thanks. There are six medical men in the town and four chemists, of whom, unfortunately, only one medical man and one chemist are independent. I think it is a disgrace, to say the least of it, to the medical profession, and a still greater disgrace to the chemists who encourage such unfair ways of doing business. The doctors actually compel their clients to have their prescriptions compounded at the chemists' who pay them for it, even though the client was formerly a regular customer of another man. And this is called a free country! Surely it should not be a chemist's prerogative, after his expensive training and stiff examination work, to have the glory and honour of partly supporting a gentleman who would probably think it a gross insult if a chemist asked him for half the fee he secured from the client who was recommended to him by the chemist. To my (perhaps unsophisticated) mind there is no difference between the two transactions. I hope the Home Government will bring in a similar Bill for the British Isles to that which has been just introduced into Victoria. Personally, I think it is a matter for the Pharmaceutical Societies to take up, and write to or wait on the General Medical Council, who might then be willing and able to legislate with a view to stopping such practices.

Faithfully yours,

BRITANNIA QUISQUE MUNERE FUNGI EXPECTAT. (74/62.)

Legal Queries.

Before submitting queries in this department, subscribers are advised to consult the "C. & D. Diary," 1905, on General and Trade laws, p. 287; Pharmacy and Poison laws, p. 299, and Medicine-stamp Acts, p. 279. In respect to the last we can mark labels "Liable" or "Not Liable" if they are sent in duplicate, and with a stamped and addressed envelope for return of the marked ones.

Full particulars in regard to trade-mark registration will be found in the "Diary," p. 240.

Puzzled (75/30).—"Family Aperient Pills" is not a dutiable title. See *C. & D. Diary*, p. 285.

Savin (72/9).—Your unqualified friend may, so far as the Pharmacy Act is concerned, manufacture and sell by wholesale a pill containing ergotin and oil of savin, but he may by so doing infringe the Offences to the Person Act.

P. A. (74/21) had a visit from a cow the other day, which walked into his pharmacy and broke a glass panel in the door. Is the owner of the cow liable? [Unless our subscriber can prove that there was negligence on the part of the owner of the cow we are afraid he cannot make him responsible for the damage done.]

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

Inquisitive (68/38).—(1) LIQUOR SOJE HISPIDI is soy, a Japanese sauce. (2) Solution of ferrous sulphate for ring-worm is an elegant form of writing-ink which is an old-fashioned remedy. It is not so powerful as mercuric chloride. See the note in our issue of September 16, p. 482.

Tartar (62/60).—(1) REMOVING TARTAR FROM THE TEETH.—If care is exercised, either dilute hydrochloric acid or acetic acid is suitable for this purpose. Cream of tartar is added to tooth-powders with the idea of removing the tartar by the solvent process. The "Zepto" pencils which Messrs. Thomas Christy & Co. sell are convenient tartar-removers, and seem to answer the purpose very well. (2) PETROLEUM EMULSION.—You give us no indication of what formula you have unsuccessfully used, but the following—that of the B.P.C.—with careful manipulation, gives a first-class preparation:

Liquid paraffin	...	...	8 oz.
Powdered acacia	...	...	4 oz.
Powdered tragacanth	...	...	2 dr.
Oil of cinnamon	24 minims

Mix all together in a mortar; then add, all at once—

Water	6 oz.
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and stir till emulsified and make up to 24 oz. with water. Sodium and calcium hypophosphates are added in the proportion of 8 grains of each to the ounce, being dissolved in the water used for dilution. Professor Wilbur L. Scoville recommends the following formula:

Petrolatum	...	...	50 gms.
Almond oil	...	...	250 c.c.
Powdered acacia	...	...	50 gms.
Powdered tragacanth	...	...	15 gms.
Syrup of hypophosphites	...	...	200 c.c.
Water, to make	...	...	1,000 c.c.

Melt the petrolatum, add the almond oil, and when the mixture has become clear allow it to cool. Place the acacia in a dry and capacious mortar, add 200 grams of the oil mixture and 100 c.c. of water. Stir vigorously until a smooth creamy emulsion is obtained. Then add the rest of the oil in portions of about 10 c.c. at a time, alternating with portions of about 5 c.c. of water, and taking care to keep a smooth and creamy emulsion. Then add gradually 100 c.c. of water, stir the tragacanth into the mixture, add the syrup of hypophosphites (if desired), and, lastly, enough water to make 1,000 c.c. (3) A new edition of "Diseases and Remedies" will be ready next month.

S. L. (65/32).—COPYING PRINTED MATTER.—The following are two formulae supplied to the *C. & D.* by a subscriber as answering the purpose satisfactorily:

(1.)			
Sapo. mollis	...	...	5j.
Liq. ammoniæ	...	...	3ss.
Ol. terebinth.	...	...	3ss.

(2.)			
Liq. potassæ	...	...	5j.
Liq. ammoniæ, aa. q.s. ad	...	...	5j.
Spt. camphor	...	...	5j.

Paint either solution over the printed matter with a camel-hair pencil, and reproduce by pressure or rubbing on unglazed paper.

A. H. M. (65/22).—SHAMPOO-POWDERS.—Two representative formulae are given in "Pharmaceutical Formulas," to which you should refer. Here is a recipe not included in that volume:

Powdered hard soap	...	...	1 lb.
Powdered borax	...	...	8 oz.
Dried washing-soda	...	...	4 oz.
Phenolphthalein	...	...	4 gr.

Mix and put up in half-ounce packets.

W. G. (64/51).—BRUSH-POLISH.—The following is a formula recently to hand, which we are told gives a superior product; others will be found in "Pharmaceutical Formulas":

Orange shellac	...	...	1 cwt.
Sandarac	...	...	14 lbs.
Chrysoidine crystals	...	...	8 oz.
Methylated spirit	...	...	25 ga's.

Eucalyptus (57/8).—LOTION-POWDER FOR HORSES.—This is powdered alum, mixed with about a tenth its weight of mustard flour. As a lotion for broken knees, cuts, and bruises $\frac{2}{3}$ oz. of the powder is mixed with a wine-bottleful of water. "Eucalyptus" says it is a splendid powder, and makes a first-class lotion. Veterinary chemists, please note.

R. A. J. (Barcelona) (59/2).—DRYING-LIQUOR, used in the preparation of dryers for painters' use:

Manganese sulphate	...	...	5½ lbs.
Calcium acetate	...	...	7 lbs.
Acetic acid	...	...	5½ lbs.
Water	...	...	5 gals.

Boil the manganese sulphate, calcium acetate, and water together till the reaction is complete, then add the acetic acid, allow to settle, and strain.

B. and P. (68/47).—VETERINARY BLISTER is a mixture of

Hydrargyri biniodidi	...	...	5j.
Adeps	...	...	5vij.

G. P. (64/48).—(1) GRAPH-COMPOSITION.—The proportions of gelatin (1), glycerin (4), and water (2) in the original patent were as indicated in the parentheses, but we have found the following answer well:

Gelatin or French glue	...	...	1 lb.
Water	...	...	1 lb.
Glycerin	...	...	2 lbs.
Whiting	...	...	4 oz.

Soak the gelatin in the water overnight, dissolve in a water-bath, add the glycerin, and finally the whiting rubbed to a smooth paste with part of the glycerin.

(2) The only certain way of finding out whether a word is registered as a trade-mark is to attempt to register the word yourself. The Comptroller will then inform you whether the word is registrable.

Herbs (71/33).—CORRASA COMPOUND.—The prescription which the advertiser of this preparation sends out is

Ext. corrasa apimis	...	...	3vij.
Ext. selarmo umbeliferæ	...	...	5iv.
Powdered alkermes latifolia	...	...	5ij.
Ext. carsadoc herbalis	...	...	3vj.

The article which the unsuspecting patient gets, when he writes to say his chemist cannot make up the prescription, is represented by the following:

Powdered gentian	...	...	15 parts
Powdered liquorice	...	...	15 parts
Powdered sugar	...	...	50 parts
Sodium bicarbonate	...	...	17.5 parts
Powdered cochineal	...	...	2.5 parts

V. B. (16/9).—(1) LAWN-SAND.—The older varieties of lawn-salt were either a mixture of sand and salt or sand and quicklime. The modern preparation is a mixture of sand and acid sulphate of potassium. The smaller the proportion of sand, the more effectual the article is as a weed-destroyer. (2) The heading "Foot-rot" has been accidentally omitted on p. 202 of "Veterinary Counter-practice."

J. N. G. (63/21).—COPAL ETHER USED BY DENTISTS.—This is prepared by dissolving soft copal in ether in the proportion of 2 dr. to 1 oz. of ether. If hard copal is used, it must be first heated to partial decomposition, when the residue will be found easily soluble in ether.

R. W. & Co. (73/24).—You must send us some particulars about the ointment before we examine it.

Premier (72/22) writes in regard to a method of "breaking" essential oils to make them mix with syrup without any cloudiness. The process required is one that does not call for spirit, or magnesia or similar "cutting" powder. As we are unable to throw any light on the subject, perhaps some subscriber will help us. (2) The SOLUBLE OIL OF LEMON which some makers put on the market is a terpenaceous oil of lemon made up to the original bulk of the oil with spirit.

P. M. (72/28).—SPECTACLE-MAKERS' COMPANY EXAMINATION.—There are no classes being held, as far as we are aware, in Manchester in preparation for this examination, but if you write to Mr. Lionel Laurence, Orthos House, 21 John Street, Bedford Row, W.C., he will tell you what his provincial arrangements are. We can put you into communication with local chemist-opticians if you do not get the information you desire.

H. P. D. B. (72/5).—CARBOLIC TOOTH-POWDER.—The most satisfactory formula we have for this is—

Kaolin	...	...	3xij.
Kieselguhr	...	...	5iv.
Carbolic acid	...	...	3ss.
Powdered quillaia extract	...	...	5ij.
Eosin	...	...	gr. iij.
Otto of rose	...	...	mx.

Dissolve the eosin in water 5ij., and triturate with 2 oz. of kaolin until well mixed. Mix the carbolic acid and otto with an ounce of kieselguhr by trituration, add to the coloured kaolin, also add the rest of the powders; triturate and sift three times.

Scot (65/57).—COD-LIVER OIL EMULSION.—The sample of emulsion you send seems to be an egg-emulsion, and made from a similar formula to the one you have tried. You would

do well to read the section devoted to cod-liver oil emulsion in the new edition of "Pharmaceutical Formulas," where recipes are given illustrating the use of the various emulsifying-agents.

W. J. B. B. (68/55).—LIQUID STARCH-GLOSS.—The sample you send is soap solution with some French chalk suspended in it. It differs from the usual run of laundry polishing-liquids, but you will not have much difficulty in imitating the sample.

E. W. M. (66/74).—MILK-PRESERVING POWDER.—This is prepared by mixing equal parts of powdered borax and toric acid, allowing to stand in a damp place for a few days, then drying and rubbing to powder.

Colosin (17/7).—MISCIBLE DISINFECTANT.—The method given by a correspondent in the *C. & D.*, December 24, 1904, p. 1031, is excellent, but we know of no cheaper emulsifying-agent for the purpose than resin soap.

Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "C. & D. Diary," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.), will be esteemed.

74/26. What is "Chinese glycerin"?

73/1. Address of makers of cheap tooth-brushes.

76/62. Address of firm who prepare coloured miniatures from photographs.

77/17. Address of manufacturers of Dettweiller's sputum-flasks or direct London agents.

78/32. Makers of a labelling-machine, composed of a table covered with canvas and a roller in front; price about 12s. or 15s.

Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor.

Mr. E. A. NUNN, chemist and druggist, is opening a business at 43 Beckenham Road, Beckenham.

Mr. SIMPSON, chemist, has relinquished the business carried on by him at 514 Kingsland Road, N.

Mr. W. A. MANSBRIDGE, chemist and druggist, has opened a business at Bell Hill, St. George, Bristol.

OMEGA, LTD., have removed their factory to Finsbury works, 11-27 King Henry's Walk, Balls Pond Road, N.

Mr. MAURICE JONES, chemist and druggist, has acquired the business of Mr. C. H. F. Woollons at 298 Harrow Road, Paddington, W.

Mr. R. E. O. BEACHER, chemist and druggist, Shepherd's Lane, Leeds, has disposed of his business to Mr. T. K. Westerman, of Huddersfield.

MESSRS. SHIRLEY & SON, chemists, in consequence of the expiration of lease, are about to remove from 2 to 60 Westbourne Grove, Bayswater, W.

Mr. E. FLETCHER, chemist and druggist, has taken over the old-established business lately carried on by Mr. H. Vernon Truman, at Dursley, Glos.

Mr. E. E. THWAITE, chemist and druggist, has purchased the business formerly carried on by Mr. C. H. Bradshaw, chemist and druggist, at Tickhill, Yorks.

Mr. W. H. HOLROYD, pharmaceutical chemist, is about to remove from 22 Bury Street to his original premises at 31 Duke Street, Piccadilly, S.W., which have been rebuilt.

Mr. CHARLES BROOKS, chemist and druggist, 4 Northumberland Avenue, London, W.C., is fitting up an American and foreign pharmacy in Craven House, Kingsway, W.C., next to Holy Trinity parish church.

THE business lately carried on by Mr. F. Bennett, chemist and druggist, and formerly by Mr. George Baxter, at 19 Foregate Street, Chester, has been purchased by Mr. John Milling, chemist and druggist, of 24 Frodsham Street, Chester.

The Week's Poisonings.

FIVE of the twelve deaths by poisoning that have taken place during the week were misadventures. Two of the misadventures occurred in Ireland. Mrs. Nellie C. Wark (25) died in Belfast from strychnine-poisoning. She was a victim to neuralgia and took an overdose of a mixture prescribed for her in Dublin. The coroner at the inquest said the prescription had evidently been made up very carefully. He had seen the prescription-book, and it was quite accurate, as was the compounding. Dr. Hogg said one of the ingredients of the medicine was strychnine, which had evidently been taken in overdose.—At an inquest held at Londonderry, on September 23, on the body of John Mullan (4), who died from belladonna-poisoning, the witnesses included Mr. John Thompson, L.P.S.I., a compounder in the city dispensary, who five months ago sold deceased's mother a bottle of glycerin and belladonna for external use. He labelled the bottle properly and cautioned the messenger. Deceased and another child found the bottle on a shelf and both drank from it; one died and the other is ill. The dead child was taken to the pharmacy of Mr. W. C. Mitchell, L.P.S.I., then to the infirmary, where he died.—At Gateshead, on September 25, an inquest was held relative to the death of Thomas Hutchinson (62), who died after taking some medicine known as "Clarke's cough balsam." Deceased had suffered from bronchitis, but death was due to heart-disease, the doctor saying that if deceased had taken anything containing morphine it would probably accelerate death. Mr. Clarke said the preparation only contained morphine in the proportion of one-fiftieth of a grain per dose. This he thought was harmless, as the official dose of morphine was one-eighth of a grain. Dr. Falconar said it was rather a large dose to put in a cough-mixture, and he thought it had accelerated death. If the deceased had been a man of strong constitution he could probably have taken it without harm. The coroner suggested that perhaps Mr. Clarke had not thought that persons subject to the affections for which the mixture was sold might also have heart trouble. It was really a case of a man getting the wrong medicine, and Mr. Clarke could not be blamed for selling what probably did good in the cases for which it was prepared. He suggested that in future Mr. Clarke should ask people to whom he sold the mixture if they were suffering from heart-trouble. The jury returned a verdict that deceased died from heart-failure, death being accelerated by morphine in a cough-mixture bought for an attack of bronchitis, and they attached blame to no one.—At Middlewich Dr. Dutton (45) died from inadvertently swallowing a large quantity of opium. Two suicides by laudanum are also recorded. Elias Lyon (24), of Langham Place, W., who was in money difficulties; and James Fincher (64), a Derby labourer, who could not get work.—Arthur Bickerton, of Cardiff, who suffered from melancholia, poisoned himself with carbolic acid.—An elderly lady, a visitor at Hastings, drank a fatal dose of a liniment of aconite, belladonna, and chloroform.—Laurence Phillips (24), of Paddington, being jilted by his sweetheart, took potassium cyanide.—An old drayman, named Samuel Day, poisoned himself with oxalic acid at Camden Town. The hydrochloric-acid poisoning in Islington is referred to elsewhere.—The verdict in an inquest held on Henry Bullen (51), who had been a labourer at Warne's Rubber Works, Stratford, for twenty-five years, was that "death was due to the action of an acute irritant poison, the nature of which was unknown."

In connection with the case of Rosina Phillips, whose death was reported in THE CHEMIST AND DRUGGIST of September 2 (p. 396), the "South Wales Echo," in reporting the case, stated that "a boy in Mr. Watts's chemist shop had given her oxalic acid in mistake." A paragraph in the "Echo" of September 22 states that inquiries have shown that there was no foundation for the statement and an apology is tendered to Mr. Watts.

CITY CORONER'S COURT.—In our issue of September 9 we published an account of an inquest said to have been held at this court by Mr. F. Danford Thomas, and stated to be in respect to the death of a woman from spirit of salt. We now learn that Mr. Thomas did not hold the inquiry. We had the report from a source which we had previously found to be reliable.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., September 28.

LITTLE of interest has transpired in the drug and chemical markets this week, but there is a steady undertone in most articles. Menthol and peppermint oil have been the chief items of interest speculatively. German refined camphor has advanced, and the tone in camphor all round is firm. Strychnine may advance owing to the high price of nuxvomica and the fact that an agreement has been made between the English and American makers. Quinine is a dead letter; the bark sale at Amsterdam will probably decide the future course of the market. Opium is firm but quiet. Citric and tartaric acids are a shade easier. Antimony is lower. The following table shows the principal changes of the week:

Higher	Firmer	Easier	Lower
Aniseed (Russ.)	Areca	Acid, citric	Antimony
Ipecac. (Rio)	Camphor	Acid, tartaric	Argol (Cape)
Linseed oil	(Germ.)	Castor oil	Asafetida
Menthol	Coriander	Pepper	Canary seed
Peppermint oil	(Russ.)	Pimento	Euphorbium
(Jap. & H.G.H.)	Cumin-seed	Shellac	Ginger (Jam.)
Rosin	Palm oil	(futures)	Vanilla
Turpentine oil			

Cablegrams.

HAMBURG, September 28:—Carnauba wax is rising. Lycopodium is dull of sale at 430m. per 100 kilos. Menthol is firmer, and agar-agar is advancing.

NEW YORK, September 28:—The drug-market is active. Opium is strongly held at last week's quotation of \$3.30 per lb. for druggists' in single cases. Peppermint oil in tins, is unsettled at \$2.40 per lb., an advance of 5c. during the week. Rio ipecac. is still firmly held at \$1.75. Cascara sagrada is easy at 6c. per lb. for new bark. Citronella oil at 40c. per lb. for Ceylon is active, and cannabidi indica at 98c. per lb. for tops is firmer. Menthol is also active at last week's quotation of \$2.35 per lb. Senega has advanced 1c. per lb., to 62c., but is dull.

AMSTERDAM, September 28:—At the auctions of cinchona held here to-day 10,771 packages were offered, weighing 1,009,469 kilos., and containing the equivalent of 52,122 kilos. quinine sulphate. Of the above quantity 6,074 packages sold at an average unit of 5.55c. per half-kilo., as compared with 5.75c. per half kilo. paid at the auction on August 24. The following were the approximate quantities of quinine purchased by the principal buyers: The English and American factories, who bought the equivalent of 12,193 kilos.; the Brunswick factory 2,027 kilos.; the Mannheim and Amsterdam factories 4,338 kilos.; the Frankfort and Stuttgart factories 1,740 kilos.; and various buyers 6,367 kilos. The prices paid for the manufacturing bark ranged from 6½c. to 51c. per half-kilo., and for druggists' bark from 5½c. to 85½c. per half-kilo. The cinchona alkaloids were bought in, and the coca-leaves realised 46½c. to 51c.

ACID, CITRIC, is easier at 1s. 3½d. for English and 1s. 3d. for foreign.

ANTIMONY.—English regulus has dropped about 5l. per ton from the nominal price, to-day's quotation being 55l.

ARECA continues very scarce, small sales having been made privately at 22s. 6d. per cwt. In auction 21 bags of good Ceylon were held at 25s.

CAMPHOR.—The German refiners have advanced their prices by ½d. per lb. to 2s. 11d. in bells, and for English 3s. is quoted. Crudo continues very scarce and is held at prohibitive prices; 275s. spot has been paid for a small parcel this week, but there is no more to be had at this figure, 295s. being the lowest for Formosan B. In the drug-auction 3 cases of 1-oz. Japanese tablets were offered and held at 2s. 9d. per lb. net, no discount; for 17 cases of ½-oz. tablets 2s. 10d. was wanted; and for 25 cases of ½-oz. 2s. 9d. was asked.

KOLA.—At the spice-auctions 6 packages dry West Indian sold at 3d. to 3½d. per lb., and at the drug-auctions 10 barrels West Indian were bought in at 4½d.

OIL, CASTOR, is steady but quiet. Hull make for prompt to December or to June, 1905, is quoted 23l. 12s. 6d. per ton for firsts and 21l. 12s. 6d. for seconds, ex wharf London.

OIL, COD-LIVER.—Our Bergen correspondent writes on September 25 that cod-liver oil remains firm at 95s. per barrel, f.o.b. Bergen, for finest non-congealing, and there have lately been some good orders from the Continent. There are but few offers of unrefined oil, and holders are very reserved, expecting better prices later. The exports from Bergen up to date amount to 9,531 barrels, against 5,306 barrels at the corresponding date of last year.

The "Trade Review" of St. John's, Newfoundland, of September 9, states that "there is a strong rumour afloat that American soap-manufacturing interests have entered the Norwegian fish-oil market, and taken up about 15,000 barrels of crude stock, in order to extract the stearine therefrom. This is considered the real basis for the marked firmness in medicinal oils which has recently developed, and not the war scare spoken of previously."

OILS, ESSENTIAL.—Japanese dementholised *Peppermint* oil has been in demand, fair sales on the spot having been made at from 4s. to 4s. 6d. for Kobayashi, and at 4s. for less-esteemed brands. American HGH has been sold in small lots at 13s. 9d. to 14s., and for pure Wayne County 10s. 6d. to 11s. spot is quoted. *Star aniseed* is steady at 4s. 9d. per lb. spot. *Lemongrass* is quiet at 8½d. per oz. on the spot. *Citronella* oil is rather firmer at 1s. 7d. per lb. for drums and 1s. 8d. for cases on the spot. *Cassia* oil remains firm but quiet at the quotations given last week. Nine cases of Japanese dementholised *Peppermint* oil in auction sold at 4s. 4½d. for Kobayashi, but to-day a fair quantity has changed hands at 4s. 6d. spot. English oil is quoted at 27s.

OILS, FIXED.—*Turpentine* oil has been advancing daily, closing at 48s. 6d. per cwt. for American on the spot. French is dearer at about 47s. 6d. per cwt. *Petroleum* oil is firm and unaltered at last week's quotations. *Linseed* oil has advanced about 1s. on the week, to-day's quotations for London pipes being 16s. 6d. to 16s. 7½d., and 16s. 7½d. for barrels. *Lagos Palm* oil is 6d. up, now 27s. 6d. per cwt. *Coconut*, *Cottonseed*, and *Rape* are unaltered at the quotations given last week.

OPIMUM.—The London market continues steady but very quiet, the business comprising a few sales of soft shipping (Hadjikeuy, etc.) at from 13s. 6d. to 14s. per lb. Persian is quoted at from 26s. to 27s. per lb.

SMYRNA, September 15:—The sales amount to 82 cases as follows: Thirty-seven cases Karahissar t.q., 17 cases new current t.q., and two cases extra selected Yerli t.q. for the U.S.A., 16 cases Karahissar t.q. for the Continent, and 10 cases Karahissar t.q. for England. In order to clear out their surplus stock of low-testing opium, needy sellers were obliged to lower prices for these by at least 6d. per lb. Good rich Yerli and Karahissar of high render are well maintained owing to scarcity. The arrivals in Smyrna to date amount to 987 cases, against 3,430 cases at the same time last year.

SMYRNA, September 16:—The transactions for the week ending to-day amount to 82 cases, comprising 80 cases old and new Adette and choice Karahissar t.q. at the same prices as last week, also two cases old choice Yerli t.q. at the equivalent of 9s. 4d. per lb., e.i.f., for exportation. The market closes firm with buyers, and the arrivals in Smyrna amount to 987 cases, against 3,430 cases at the corresponding period of last year. The quality of the new opium to hand this week has much improved, and the low plateaus have produced gum equal to that of the last crop.

CONSTANTINOPLE, September 23:—The market has been quieter during the past two weeks owing to the decline in Smyrna, which was brought about by the scare consequent on anarhist events. The position is really a curious one. The crop has yielded about 2,600 cases, one of the smallest on record, and yet in the face of it prices have declined. Large

Importers must have supplied their wants for a considerable period ahead at low prices current last season, and can afford to look on for some little time to come. Their future actions will no doubt be guided by the success or failure of autumn sowings, which will commence as soon as the prolonged drought comes to an end. Meantime we do not expect any further decline on this side, as with grain crops moving, native holders will not be obliged to sell for monetary reasons, as has been the case hitherto. The sales for the week amount to 20 cases Karahissar at the parity of 8s. 4d. per lb.; 26 cases Herae at 9s.; 5 cases "druggist's" at 8s. 2d.; and one case old "druggist's" at 8s. 7d. per lb., f.o.b.

QUICKSILVER is unaltered at last week's advance to 7l. 5s. per bottle, and in second hands 1s. to 2s. less would buy.

QUININE.—There has again been no business in the speculative market, but prices are unaltered, with sellers at 9½d. to 9¾d. per oz. for the usual brands of German sulphate in bulk. The result of the bark-sale in Amsterdam to-day will probably give the cue as to what line of action dealers will take in regard to prices for the immediate future.

The exports of "quinine, quinine preparations, etc.," from Germany during the six months ending June were as follows: 1905, 65,500 kilos.; 1904, 90,900 kilos.; and 1903, 74,000 kilos.

ROSIN.—The decline of 6d. noted in our last issue was recovered before the week closed, the quotation for common American strained being 9s. 3d. ex wharf.

SEEDS.—Russian *Anise* is dearer, at 25s. per cwt., c.i.f., is asked for good new crop; inferior quality can be bought at 22s. *Caraways* quiet at 27s. 6d. to 28s. 6d. per cwt. for ordinary to good Dutch. *Canary* lower; new crop Turkish has been sold at 62s. per quarter, c.i.f., but on the spot the value is 64s. to 65s. *Coriander* is firm at 25s. per cwt. for Madras. Russian is dearer at 30s. to 34s. per cwt., c.i.f., according to quality. Morocco *Cumin* is dearer at 27s. 6d. to 28s. 6d. per cwt. for common to fair, and at 30s. for good. Malta unchanged at 30s. to 32s. 6d. per cwt. *Penugreek* slow at 8s. per cwt. for East India, and at 10s. 6d. for Morocco. *Linseed* quiet at 42s. to 46s. per quarter for good clean Dutch.

SHELLAC has been extremely quiet, and prices of "futures" after being nominal most of the week were rather steadier on Wednesday, with a few small sales of TN at 178s. for October delivery; for arrival October-December shipment is quoted 173s., c.i.f. On the spot the demand has also been slow, ordinary to good TN selling at from 176s. to 180s., and 183s. to 185s. for superior. Small sales of cakey to blocky AC Garnet have been made at from 175s. to 176s., and blocky GAL at 152s. 6d. per cwt.

SPERMACETI.—Refined American has been sold in Liverpool at 12½d. per lb. in store.

SPICES.—At auction Jamaica *Ginger* sold at rather easier prices, including good at 56s., fair washed 44s. 6d. to 48s., and good common 42s. to 43s. Lined Japan was bought in at 16s., and wormy washed Cochin partly sold at 19s. to 20s. per cwt. Greyish Singapore *Pepper* was bought in at 5½d., and Lampung at 5½d. Privately sellers ask 5½d. for spot Singapore, and fair quantities have changed hands for shipment at easier prices. *White pepper* at auction was steady, fair Singapore selling at 8½d., and fair Siam at 8d.; for arrival prices are easier, and for spot 8½d. is about the value. *Pimento* was easier at auction, fair to good selling at from 2½d. to 2½d. per lb. *Chillies* were bought in at 37s. for good bright Zanzibar, and Mombasa at 28s. to 30s. *Cinnamon* partly sold at 6½d. for fair broken, and 2½d. for chips. West Indian *Nutmegs* were generally steady, and *Mace* was quiet. *Cloves* at auction were slow, 19 packages Zanzibar out of 295 offered finding buyers at 6d. for good bright and 5½d. for dark. Privately the delivery market has been more active at fluctuating prices, the sales comprising about 2,000 bales October-December at 5½d. to 5½d., to 5½d., and January-March at 6d. to 5½d. For arrival October-December shipment has been sold at 6½d., c.i.f. d/w, and September-November at 6d., c.i.f. d/w. Spot sales of Zanzibar have been made at 5½d. to 6d. per lb.

STRYCHNINE.—There has been a good export demand lately and the market is firm, the tendency being towards advancement. A rumour has been current that English and American makers have come to an agreement, and that, together with the dearness of nux vomica, is given as the reason for a probable advance.

VANILLA.—At auction on September 22, practically two

thousand tins were brought to the hammer, of which rather more than half sold. New crop Seychelles met with a good demand at a decline of from 1s. to 1s. 6d. per lb. for long beans and 1s. for medium, shorts being steady to 6d. cheaper. Brown, foxy, and split sold at fully previous prices. *Seychelles* 7 to 8½ in. realised 7s. to 9s., good firsts 3½ to 6½ in. 3s. 9d. to 5s. 6d., fair firsts 7 to 8 in. 5s. to 6s. 9d., 3 to 6½ in. 2s. 9d. to 4s., good seconds poor flavour 4 to 7½ in. 2s. to 4s., common foxy 1s. 9d. to 3s., fine split 4s. 6d. to 4s. 9d., fair 2s. 6d. to 3s., common foxy and brownish split 2s. to 3s., and mouldy 9d. to 2s. per lb. *Bourbon* 8½ to 9 in. 8s., 8 to 8½ in. 6s. 9d. to 7s. 6d., 7½ to 8 in. 5s. 6d. to 7s., 3 to 7½ in. 2s. to 5s. 3d., good splits 3 to 8½ in. 1s. 9d. to 3s. 6d., common 3s. to 7½ in. 2s. 9d. per lb. *Mauritius*. A few sold at 3s. to 3s. 3d., for fair to good seconds 5 to 6½ in., fair crystallised 7 to 7½ in. 5s. 9d. per lb.

London Drug Auctions.

The supplies offered at to-day's auctions of first and second hand drugs were considerably larger than has been the case for several months past, and they met with but a dragging demand. The features were the sales of common asafetida, the steady tone for cardamoms, and the demand for Tinnevely senna. Cape aloes hung fire, fine being about steady and common easier. Cape argol sold cheaply. Buchu-leaves were slow of sale. Sumatra benzoin brought very firm prices, and for Ceylon coca-leaves steady rates were paid. Calumba is arriving more freely; colocynth pulp sold cheaply, and previous rates were paid for caseara sagrada without reserve. Dragon's-blood was neglected, and the gamboge offered had mostly been disposed of privately. Jamaica honey sold at steady prices, and holders of ipecacuanha were firm, but buyers did not respond publicly. Myrrh brought firm prices, and menthol sold at advanced rates. Rhubarb realised valuations, and good prices were obtained for grey Jamaica sarsaparilla. For beeswax generally there was no demand. The following table shows the amount of goods offered and sold, the asterisk denoting those sold privately:

Offered		Sold		Offered		Sold	
Aloes—				Honey—			
Cape	31	...	22	Jamaica	96	...	54
Curacao	19	...	0	Ipecacuanha—			
Zanzibar	5	...	0	Bahia	2	...	0
Ambergris	7	...	0	Minas	6	...	3
Annatto-seed	14	...	*4	Rio (Matto Grosso) ..	21	...	*1
Antimony (Jap.) ..	30	...	0	Kamala	6	...	1
Areca	21	...	0	Kino	18	...	0
Argol	37	...	37	Kola	10	...	0
Asafetida	446	...	284	Lime-juice (pns) ..	2	...	0
Asphaltum	6	...	0	Linseed	10	...	0
Balsam—				Manna	1	...	0
Peru	7	...	0	Medicine root	5	...	0
Tolu	4	...	0	Menthol	25	...	25
Benzoin—				Musk-seed	1	...	1
Palembang	14	...	5	Myrrh	44	...	12
Saigon	4	...	2	Oil—			
Siam	5	...	0	eananga	6	...	0
Sumatra	94	...	18	chaulmoogra	5	...	0
Buchu	46	...	2	cinnamon leaf	16	...	0
Calumba	140	...	50	citronella	25	...	0
Camphor (refined) ..	45	...	0	clove	2	...	0
Canella alba	16	...	0	eucalyptus	10	...	0
Cannabis indica	16	...	0	lavender (qts.)	3	...	0
Cantharides (Chin.) ..	5	...	0	lime	16	...	14
Cardamoms	463	...	142	patehouli	6	...	0
Caseara sagrada	120	...	120	peppermint	9	...	9
Cascarilla	31	...	0	rose	9	...	0
Casein	38	...	0	Olibanum	66	...	0
Cashew nuts	15	...	0	Orange-peel	30	...	5
Castorium	1	...	0	Orchella-weed	30	...	0
Centaur	4	...	*4	Orris	78	...	58
Chillies (Zan.)	25	...	0	Papain	6	...	0
Cinchona	32	...	0	Patchouli	60	...	0
Coca-leaves	34	...	14	Putcha-leaves	21	...	0
Colocynth	32	...	11	Quillaia (tons)	2	...	0
Condurango	16	...	0	Quince-seed	6	...	0
Cubeb	10	...	0	Rhatany	48	...	0
Cumin-seed	21	...	0	Rhubarb	84	...	26
Cuttle-bone	127	...	10	"Roots"	23	...	0
Dragon's-blood	46	...	2	Sandalwood chips ..	27	...	0
Ergot	6	...	0	Sarsaparilla	26	...	13
Euphorbium	16	...	16	Scabiae	60	...	8
Fennel-seed	258	...	178	Scammony root	287	...	0
Galls	4	...	4	Scammonium	2	...	1
Gamboge	5	...	5	Seedlae	30	...	0
Gentian	25	...	*10	Senna			
Guaiacum	2	...	0	Alexandrian	2	...	0
Gum arabic	152	...	21	Tinnevely	987	...	987

	Offered	Sold		Offered	Sold
Soy	13	0	Wax (bees')—		
Squill	19	2	East Indian	82	7
Tamarinds	9	4	Grenada	2	2
Tonka-beans	7	0	Jamaica	33	5
Tragacanth	30	0	Madagascar	99	7
Turmeric	685	0	Mombasa	35	0
Vermilion	3	0	Morocco	3	0
Wax (bees')—			Mozambique	19	0
Aden	11	0	Spanish	5	0
Australian	11	0	Zanzibar	234	4
Cap	2	0	Wax, Japanese	55	*5
Ecuador	2	0	Zedoary root	50	0

ALOES.—Steady. Fine bright hard Cape firsts sold at 25s. subject, good bright hard at 24s. 6d., and dull and softish at 22s. 6d. down to 20s. for common drossy. We understand the sale at "25s. subject" was not afterwards confirmed. Five cases hard hepatic mixed to common dark Zanzibars in skins were held at 35s. No Curaçao was sold.

AMBERGRIS.—A bid of 70s. per oz. was declined for a tin of genuine grey of fair flavour. Five other tins were bought in.

ANNATTO-SEED.—Firm. Two parcels of fair bright Madras were offered, of which 4 bags had been sold privately; 7d. was wanted for the remainder.

ARGOL.—A parcel of 37 bags of grey Cape, which had been previously offered, sold at 40s. per cwt.

ASAFETIDA.—Part of the new parcel of ex *Kaffir*, from Bombay, was offered to-day, without reserve, to the extent of 202 cases. The bulk consisted of low earthy block, with a slight smell of asafetida, for which from 5s. to 11s. 6d. per cwt. was paid. Another parcel of 165 packages, from Bunder Abbas, which had been previously offered, was mostly disposed of at lower prices, including fair almondy block, part stony, at from 50s. to 55s., and hard heavy, part stony and part turning pinky, at from 46s. to 49s., with commoner ditto at from 32s. to 37s. For good almondy block, a little soft, 45s. was refused, the limit being 60s. per cwt.

BALSAM PERU.—For guaranteed genuine 4s. 3d. per lb. was wanted, a bid of 4s. being declined.

BALSAM TOLU.—Four cases, containing large tins of slightly drossy quality, were bought in at 10d. per lb.

BENZON.—Very firm. Good almondy Sumatra seconds well packed with small to bold almonds sold at 7l. 10s. to 7l. 12s. 6d. per cwt. for 14 cases. Three cases of ordinary seconds with few almonds sold at 5l. 12s. 6d. Five cases Palembang sold at 30s. without reserve for ordinary, and two cases dark Saigon sorts realised 80s. A case of small to medium free yellow Siam almonds of good flavour was offered and a bid of 13l. 5s. is to be submitted.

The exports from Bangkok during 1904 amounted to 13 tons, valued at 921l., being an increase in value of 559% compared with the previous year.

BUCHU.—Steady. Small sales of fair round greenish were made at 6d. per lb.

CALUMBA.—A parcel of extra bold thick yellowish native washed sold at from 29s. to 30s., darker and brown ditto at 19s. 6d. Sea damaged realised from 12s. to 16s.

CARDAMOMS met with a quiet demand at steady prices, with smalls and splits a shade easier. The following rates were paid: Ceylon-Mysore, bold round fine pale 2s. to 2s. 1d., long ditto 2s. 1d. to 2s. 2d.; good bold pale round 1s. 9d. to 1s. 10d.; extra bold brownish 1s. 6d.; bold long pale 1s. 2d. to 1s. 4d.; medium and bold pale round 1s. 2d. to 1s. 3d.; small pale 10d.; bold pale splits 1s.; medium splits 9½d. to 10d.; brown and split 7½d. to 8½d.; seed 10d. to 11d. Telli-cherry, bold brown heavy (39 cases) were limited at 1s., a bid of 10½d. for the string being refused; 14 cases of smaller ditto were bought in at 10d., a bid of 8½d. being declined. Four cases of small heavy were sold at 8½d., a case of brown and splits at 8d., and a case of seed at 10½d. per lb.

CASCARA SAGRADA.—Steady. A parcel of 120 bags fair darkish 1903 crop was offered without reserve, and sold at 28s. per cwt. gross for net, no discount or allowances. Privately small sales have been made at 29s. 6d., spot.

CASTORUM.—A box of dry skinny seconds and thirds mixed was limited at 65s. per lb.

CENTAURY HERB.—Four bales from Marseilles had been sold privately.

CINCHONA.—A parcel of small to bold flat Calisaya was bought in at 10d. per lb., 8½d. being declined.

COCA-LEAVES.—Ceylon sold at fully steady prices, sixteen cases realising from 1s. 3d. to 1s. 4d. for good greenish. Eleven packages of fair sold at 1s. to 1s. 2d., damages realising from 6d. (subject) to 8d. per lb. For broken green Truxillo 10d. was wanted, at which sales have been made privately.

COLOCYNTH.—Eleven bales of Persian pulp sold at from 1s. 5d. to 1s. 5½d. per lb.

CUTTLE-BONE.—A large quantity of East Indian was offered and mostly bought in. Twenty mats bold palish sold at 3d.; fine bold pale was held at 7d.

DRAGON'S-BLOOD was in large supply and very little was disposed of. For two cases of good bright re-boiled Singapore lump 8l. 5s. per cwt. subject was paid. For dull reed 8l. 15s. per cwt. was wanted.

ERGOT.—Small to bold sound Spanish ergot was held at 2s. 2d. per lb., and for 4 bags of sound greyish Spanish 2s. 1d. was wanted.

EUPHORBUM.—Sixteen serons of Morocco sold without reserve at from 12s. to 16s. per cwt. for slightly mixed, being lower.

FENNEL SEED.—Fair East Indian more or less heated was held at 19s., and damages sold at from 9s. to 14s. 6d. per cwt.

GAMBOGE.—Four cases of very blocky Siam pipe, slightly damp, with good orange fracture, had been sold privately. For an odd case of very soft and damp Siam pipe, of good orange fracture, 14l. was paid.

The exports from Bangkok during 1904 amounted to seven tons, valued at 994l., or 915l. less in value than the previous year.

GUAIACUM.—Two casks of broken, partly drossy block were bought in at 9d. per lb., a bid of 6d. being declined.

GUM ARABIC.—Six bags of good bold picked Ghatti, which is scarce, were bought in at 47s. 6d. per cwt.

HONEY sold at steady rates. Bright amber liquid Jamaica in cases brought 24s., bright pale setting to yellow 20s., fair amber liquid in cases 18s., pasty brown in casks 16s. 6d., dark thick candied in casks 15s. to 15s. 6d. per cwt., and fermented 14s. to 16s.

IPECACUANHA.—Firm but quiet, holders not showing much inclination to sell. No Rio was disposed of, 7s. 6d. to 8s. per lb. being wanted as to quality. A new lot of three bales of ordinary Minas sold cheaply at 6s. 11d. per lb. for part mouldy and thin, and for another 3 bales of good, bright, native-picked Minas 7s. 9d. was wanted. Privately small sales of Rio have been made at 7s. 6d.

KAMALA.—A small sale was made at 6d. per lb.

MENTHOL.—Privately there has been a flurry in this article, and a fair quantity has changed hands on the spot at rising prices. Early in the week some forty cases were sold at from 7s. 9d. to 7s. 10½d. for Kobayashi, but since 8s. spot has been paid for this brand and 8s., c.i.f., for October-December and November-January shipment. The business has been mostly speculative, but there has also been consumptive and export buying. In the drug auction 15 cases of Kobayashi crystals, catalogued "without reserve," had been sold several days previous to the sale, and the fact that the said 15 cases were allowed to be printed as for sale "without reserve" points to "bear" tactics in this article. From another catalogue eight cases of large dullish crystals, Yazawa brand, sold at 8s., and two at 7s. 10½d. per lb.

MYRRH.—In more demand. Two cases of good pale picked sold at 7l. per cwt., and for fair Aden sorts, partly blocky, 92s. 6d. was paid. Several parcels had been disposed of privately.

OIL, CINNAMON.—Fine pale Ceylon-leaf oil was limited at 3d. per oz.; other qualities in proportion.

OIL, EUCALYPTUS.—Australian, of B.P. quality, containing 67 to 68 per cent. cineol, was limited at 1s. 1d. per lb.

OIL, CANANGA.—The price for Batavian was 3s. 6d. per lb.

OIL, LIME.—Steady. Four cases of fair West Indian distilled sold at 1s. 8d. per lb., and for a further 10 cases 1s. 7d. was paid.

ORANGE-PEEL.—Small sales of fair pale Tripoli strip were made at 4½d. per lb., and dark at 4d.

ORRIS.—Three serons of lean Morocco brought 10s. per cwt. Twenty bales of lean Florentine sorts sold at 19s., and 30 bags of fair Florentine sold, without reserve, at from 17s. 6d. to 18s. per cwt.

RHATANY.—Ten bales of good Peruvian, in short lengths, free from chumps, were bought in at the nominal price of 6d. per lb. gross for net.

RHUBARB.—Sold at valuations. Of 8 cases Canton offered, 5 had been disposed of privately, and for 4 cases of round trimming root of good fracture, part stalky, 1s. 3d. was paid. Medium round Canton with $\frac{3}{4}$ pinky fracture sold at 1s. 3d. Four cases of small to bold flat High-dried with half pinky and half grey and dark fracture sold at 1s. 2d., being firm, and previous to the sale about a dozen cases of Shensi had been disposed of.

SARSAPARILLA.—A new parcel of eight bales of grey Jamaica was offered and met with good competition, fair sound realising 1s. 6d., slightly sea-damaged 1s. 6d., and sea-damaged 1s. 5d. per lb. Four bales of pale yellow to reddish native Jamaica sold at 8d., and a bale of good red ditto at 10d. Honduras was held at 1s. 5d.

SCABLAC.—Eight cases sold at 95s. per cwt. for fair native Madras.

SCAMMONIUM partly sold at 22s. per lb.

SCAMMONY-ROOT was neglected at 17s. 6d. per cwt.

SENNA.—The quality of the Tinnevely leaf offered showed no improvement, and only here and there could one discern a boldish green leaf, and these were specky. $2\frac{1}{2}$ d. to $2\frac{3}{4}$ d. was paid for such; small green realised $1\frac{3}{4}$ d. to 2d.; small specky greenish $1\frac{1}{4}$ d. to $1\frac{1}{2}$ d., and common damaged specky $\frac{3}{4}$ d. to 1d. per lb. *Pods* sold at 1d. to $1\frac{1}{4}$ d. per lb. for dark to fair.

SQUILL.—Fair pale was bought in at 3d. per lb., and 2 bags sold without reserve at $1\frac{1}{2}$ d.

TAMARINDS.—Good fresh West Indian, in bond, sold at 16s. 3d. per cwt.

TONKA-BEANS.—Good frosted Pará were held at 1s. 3d., at which price private sales have been made.

TURMERIC.—Neglected. Cochin split bulbs were held at 8s. to 8s. 6d., and fair Madras finger, slightly weevily was bought in at 17s. per cwt. Privately Madras is quoted 16s. to 18s., according to quality, and Cochin has changed hands in small lots at 8s. for split bulbs.

VERMILION.—For Chinese 3s. per lb. was wanted.

WAX, BEES'.—All descriptions were slow of sale. The bulk of the Jamaica offered was bought in at 8l. 2s. 6d. per cwt., only 2 barrels being disposed of publicly at 8l. for good bright; an odd package of fair brown realised 7l. 5s. Of East Indian, dull bleached Calcutta was bought in at 7l. 10s. to 7l. 7s. 6d.; good yellow was held at 6l. 10s.; yellow Spanish at 6l. 7s. 6d.; and adulterated Mogador at 5l. 10s. Fair brown Zanzibar wax was held at 6l. 15s., and for seven pockets good Madagascar block 7l. was paid, and the same price was also asked for 11 bales of Aden. A bid of 6l. 10s. is to be submitted for fair Madagascar, and for good red Mombasa 7l. was wanted. Two boxes of good pale, bright, yellow Grenada sold at 8l. 5s. per cwt. Good bright Cape was held at 7l. 10s., and for seven cases Bombay 6l. 2s. 6d. was paid for grey and yellow.

WAX, JAPANESE.—A small lot in the auction had been disposed of at 58s. per cwt., and another lot of 50 cases of yellowish squares was bought in at 60s.

The exports from Japan during the six months ending June amounted to 1,387,151 kin, against 2,251,398 kin and 1,700,426 kin during the corresponding periods of 1904 and 1903 respectively (1 kin=1.3 lb. avoird.).

Heavy Chemicals.

There is little of special moment to be reported as regards the condition of the heavy-chemical market. General demand continues fair for prompt delivery, but there is a slight falling off in the volume of business which is being done just now for next year's requirements. This, however, is due to the fact that already a very fair proportion of such usual business has been completed. Prices all round are firm, and where change seems likely tendency is in an upward direction.

ALKALI PRODUCE.—Main products are very firm, particularly bleaching-powder and caustic soda. The strong tone of ammonia alkali and soda crystals is well maintained too. Hyposulphite of soda is another produce exceptionally firm

just now, and makers are holding out for higher prices for next year.

SULPHATE OF AMMONIA maintains a firm tone, and upward tendency continues. Present nominal figures: Beckton 12l. 15s., Beckton terms 12l. 12s. 6d., London 12l. 12s. 6d., Leith 12l. 13s. 9d. to 12l. 15s., and Hull 12l. 10s. to 12l. 11s. 3d.

BARIUM PRODUCTS.—A steadily improving business is being done in this department, and prices are likely to improve from the low values which have been ruling for a long time past. Chloride of barium, ordinary refined crystals in large casks, 6l. 15s. to 7l. 5s. per ton, and in bags 6l. 10s. to 7l. Blanc Fixe, pure precipitated sulphate of barium in paste form, 6l. 5s. to 6l. 15s. per ton in 8-9 cwt. casks. The pure Blanc Fixe dried and in powder form is in increased request, and with supply on the scarce side prices are very firm at 8l. 10s. to 9l. 10s. per ton in casks. Mineral sulphate of barytes ground is in good average demand at unaltered rates of 40s. to 100s. per ton, in accordance with quality, quantity, and package. The mineral carbonate of barytes, Witherite, keeps in strong demand, and prices differing according to percentage are still only nominal, and subject to arrangement of quantity and delivery. Sulphide of barium is rather quiet; crude calcined 70 to 75 per cent. 4l. 5s. to 4l. 15s. per ton in 7-8 cwt. casks. Hydrate of barium is in increased general demand and firm; crystals in 6-7 cwt. casks at 13l. to 14l. per ton, and concentrated fused 50 to 60 per cent. BaO, solid in drums, at 13l. 10s. to 15l. per ton; crushed concentrated 30s. per ton extra. Nitrate of barium also maintains a strong tone and is somewhat higher. Crystals 17l. 15s. to 18l. 5s. per ton, and powdered 18l. to 18l. 10s. per ton.

German Drug-market.

Hamburg, September 26.

Business is quiet, and only a few articles meet with interest from buyers.

ANTIMONY shows a decline, spot being now quoted 75m., and forward 65m. per 100 kilos.

CAMPHOR (Refined) is firm; makers now ask 650m. per 100 kilos., while second-hands will accept 640m.

CARNAUBA WAX is very firm at advancing prices; grey is quoted 255m., and fine yellow 430m. to 440m. per 100 kilos.

CUMINSEED is firm at 55m. per 100 kilos.

ERGOT is quiet but steady at from 370m. to 360m. per 100 kilos.

IRECACUANHA is strong, Rio being quoted 16 $\frac{1}{2}$ m., and Cartagena 16m. per kilo.

LYCOPODIUM is still declining; spot is now quoted 480m., and forward 430m. per 100 kilos.

MENTHOL is quiet at 17 $\frac{1}{2}$ m. per kilo.

JAPAN WAX is rather easier at 110m. on the spot, and 107m. per 100 kilos. for forward.

SENEGA is quiet at 600m. per 100 kilos.

OILS (FIXED).—Castor is quiet, first-pressing in barrels being quoted 46 $\frac{1}{2}$ m. per 100 kilos. Cod-liver is unchanged at 90m. per barrel. Chinese wood in barrels on the spot is 67m. per 100 kilos. Palm-kernel is quiet at 52m. per 100 kilos.

OILS (ESSENTIAL).—Peppermint is quiet at 9m. per kilo. for Japanese, and at 12 $\frac{1}{2}$ m. per lb. for H.G.H. for forward delivery. Staraniseed is quoted 10 $\frac{3}{4}$ m. per kilo.

American Drug-market.

New York, September 19.

Business generally continues to show improvement, and the drug-market is fairly active, though large transactions are few. The general tone is bullish.

ALOES.—Curaçoa maintains its strong position, and values are unchanged, 54c. being still asked. Barbados in gourds is also firm, with 15c. asked.

BUCHU-LEAVES are moving steadily, with prices well maintained at 14c. to 16c., according to quality.

COD-LIVER OIL.—Prime Norwegian has sold at \$27.00, and more is offered at this figure. Newfoundland oil is finding a ready market at \$22.00.

IPECAC. is firm, with sales at \$1.67 $\frac{1}{2}$ to \$1.70, the latter being now inside. Some dealers will not shade \$1.75.

MENTHOL is attracting some interest, mainly of a speculative character, and prices are unsettled. Some dealers will sell at \$2.35, while others ask up to \$2.75. Much of the spot stock was acquired above \$2.50, and dealers are not anxious sellers.

OPIMUM continues strong, but demand has fallen off. Jobbing lots are offered at \$3.30.

PEPPERMINT OIL.—The general tone is bullish, and prices are firmer. Large lots have changed hands at \$2.20 to \$2.25, and dealers generally look for a higher market. One large dealer from the West, however, states that the new crop will be at least 250,000 pounds, which, with stocks left over, will be more than sufficient to meet requirements, and consequently lower prices will rule in the near future.

SARSAPARILLA.—Mexican is firm, and none is offering below 11 $\frac{1}{4}$ c.

SENEGA is quiet and a trifle easier. Small lots have sold at 61c. to 62c.

LADY Dispenser (Hall certificate), 18 months' Dispensing with Doctor, Hospital Nursing experience, desires daily post, London. Address, "Dispenser," Dr. Ponder, 188 Lower Olapton Road.

JUNIOR; 21 years; 7 years' mixed experience; excellent references; Dispensing, Prescribing, knowledge of Photography; wages required 25s. (outdoors). A. Hopkins, 31 St. John's Street, Bedford.

MANAGER; 28; qualified; married; best West-end and provincial experience; knowledge of Photography; energetic; excellent references; disengaged. "Omega," 62 Grosvenor Road, Highbury, N.

NEGLECTED or declining businesses carefully reorganised by qualified Manager; varied experience; highest references. Apply Box 23, c/o Messrs. Butler Brothers, Chemists, High Wycombe, Bucks.

UNQUALIFIED; good references; 20 years' experience, London and provincial; Prescriber; Photographic and Dispensing; outdoors; disengaged after October 20. "Kodak," 41 Port Vale, Hertford.

MANAGER or Senior Assistant; qualified; married; 29; tall; first-class Dispensing and Photographic experience; Extractor; excellent references; disengaged September 30. 173/14, Office of this Paper.

DISPENSER desires engagement; Surgeon or Institution; experienced in private and hospital work; good references; bookkeeping if required; Hall certificate. Miss Taylor, Rosendell, Highland Road, Chichester.

ASSISTANT or Manager; unqualified; married; aged 35; 19 years' varied experience; good Counterman; Tooth extractor, Dispenser, Prescriber; 5 years' references; disengaged. "Rhei" (176/6), Office of this Paper.

ASSISTANT; West-end suburban experience; aged 26; height 5 ft. 10 in.; well up in Photography; fully capable of managing if required; outdoor; good references. "Oheimus," 79 Stormont Road, Clapham Common, S.W.

ASSISTANT, speaking German and French fluently and with good knowledge of English, with first-class Continental experience, desires a situation in a Pharmacy in England. Address, Gathmann, 4 Terrapin Road, Balham.

ASSISTANT (22), French, speaking little English, 5 years' experience first-class English-Parisian Pharmacies, best references, requires situation in England; not exigent. Biguonet, Pharmacie Anglaise, 118 bis Avenue Victor-Hugo, Paris.

CHEMIST (qualified), aged 45, shortly retiring from retail, requires position of trust (wholesale or retail, manager of department, or as manager with view to partnership) which would correspond with 30 years' unbroken experience in London and country retail; satisfactory references; abstainer. 175/22, Office of this Paper.

WANTED, by son of Chemist (aged 21), situation in semi-Wholesale and Retail trade in good agricultural or country district where opportunity would be given for improvement; also recreation and home comforts; salary not so much an object as change and other experiences. Apply, with full particulars, salary given, to 174/303, Office of this Paper.

WHOLESALE.

SITUATION wanted as Junior; some experience. 173/32, Office of this Paper.

INVOICE-CLERK (Junior); good knowledge of the business. 177/36, Office of this Paper.

UNQUALIFIED Retail Assistant (24) wishes to enter Wholesale house. 176/37, Office of this Paper.

TRAVELLER desires engagement with first-class Drug house; town or country journey. "D," 12 Knoll Road, Wandsworth.

CHANGE desired; 11 years' all-round experience in Retail; salary moderate; married. Apply, "Change" (172/4), Office of this Paper.

A QUALIFIED Chemist desires a situation as Traveller to Wholesale Druggists; disengaged. "W. H. H.," "Brockleigh," Maid enhead.

QUALIFIED (24), 8 years' Retail, wishes Wholesale experience; Newcastle district preferred. "Scot" (172/11), Office of this Paper.

TRAVELLER; good all-round experience in Retail; first-class salesman; gentlemanly appearance. "Manager," 291 Cann Hall Road, Leytonstone, E.

WHOLESALE Laboratory.—Young man seeks situation in Laboratory or Wetroom; thoroughly experienced in making B.P. Galenicals. "X," (174/32), Office of this Paper.

YOUNG qualified Chemist (Scotsman); tall; good appearance; at present Manager large Retail business) desires to represent good Drug or Sundries house; excellent references. 173/81, Office of this Paper.

A CAPABLE Woman, of trained business habits (Minor qualification), desires re-engagement in offices of Wholesale house; thoroughly experienced in routine work of such offices, card systems, &c. "Manufacturing" (177/38), Office of this Paper.

TRAVELLING Partner in Wholesale Manufacturing Chemist's selling his interest, very large connection in Retail trade, seeks position as Traveller for Wholesale house, for whom he would do a large business; moderate terms. "G." (178/3), Office of this Paper.

TRAVELLER desires re-engagement with good house; qualified Chemist; first-class selling record and connection; exceptional experience Drug, Essence, Sundries, Drysaltery, &c., trades; undeniable references. "Cltrate" (173/30), Office of this Paper.

TRAVELLER.—Having sold my Drug business, I should like to obtain a berth as Traveller for a good Drug or Sundries house; have had a good trade experience, am young and energetic, and have some knowledge of travelling. 174/38, Office of this Paper.

TRAVELLER.—A thoroughly capable and educated young man, aged 24, desires a change, and wishes to travel for Drugs or Sundries firm; 8 years' varied experience at large Manufacturing Chemist's; at present holds a responsible position. 175/26, Office of this Paper.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

CHEMIST'S Fittings.—10 ft. range of mahogany drug drawers with glass labels and knobs and lockers under; 10 ft. mahogany-top serving counter; 6 ft. dispensing screen with counter under; desk and perfume case; bent-glass counter case and French scales; £25 the lot.

PHILIP JOSEPHS & SON, 93 Old Street, London, E.C.

IMPORTANT NOTICE TO CHEMISTS about opening new Premises.—We have positively the largest and finest Stock of Second-hand Fittings for sale at Unheard-of Prices; drawings and full particulars on application; inspection invited; shops fitted completely. Rudduck & Co., Shop-fitters, 262 Old Street, London.

McQUEEN'S System of Accounts for Chemists; requires no knowledge of bookkeeping; three books in one—Cash Book, Private Ledger, and Wholesale Ledger. A Chemist writes: "Have found it all you claim; it only wants feeding and it works itself"; price 7s. 6d. Particulars, post free, from McQueen & Sons, Devana Road, Leicester.

PATENTS and Sundries; free boxes; carriage allowed; prices and terms on application to Barclay & Sons (Limited), 95 Farringdon Street, London.

CHEMIST'S Drug Fittings, second-hand; drawers, glass labels and knobs, lockers, shelves, cornice 12 ft. long, £12; Dispensing counter, upright cases each side, mirror centre to ground, drawers at back 6 ft. long, £10; 7-ft. wall case, £10; desk and perfume case, 50s.; 10 ft. counter, 70s.; glass shelves shaped with fittings complete, 18 in., 15 in., 12 in. wide, 3 ft. long, 50s. **TREBLE & CO.**, Complete Shop Fitters, Rectory Works, Rendlesham Road, Clapton, London, N.E.

McADAM & TUCKNISS, Sharedealers, 30 Tranquil Vale, Blackheath, London, S.E. Telephone 81 Lee Green.

SHARES FOR SALE (free of commission, subject).—20 Vinolia preference, 86s. 6d. x.d.; 250 Sapon, Ltd., £1 fully paid, 18s. 6d.; 50 E. Cook & Son £10 5 per cent. preference, £9 6s. 3d.; 4 Harrison-Barber, £3 7s. 6d.; 100 Geo. Coverdale ordinary, 15s. 3d.; 50 Pears Soap ordinary, 33s. 9d.; 50 A. J. White preference, 9s. 9d.; 100 ordinary, 2s. 6d.; 100 Vi-Cocoa preference, 15s. 3d.; 200 Claudius Ash & Sons 5s per cent. preference, 21s. 9d.; 100 G. B. Kent preference, 20s. 3d.

WANTED (subject).—25 Bleasdale, 77s. 6d.; 250 Idris "A" preference, 22s. 1½d.; 200 "A" ordinary, 27s. 7½d.; 100 "B" ordinary; 50 Southall Bros. & Barclay preference, 22s. 1½d.; 20 Lewis & Burrows preference, 12s. 6d.; 50 Camwal ordinary, 6s. 6d.; 50 preference, 12s. 9d.

List of shares for sale and wanted sent free on application. Bankers, London and County. Established 1898.

GREAT Bargains in Secondhand Fittings.—144 stoppered rounds, assorted sizes and gold-labelled, £5 17s. 6d.; 108 recessed-label ditto, £8; 6-ft. counter with glass-case front, £4; 4 ft. wall-case, £5 10s.; 3-ft. bent-front glass counter-case, 50s.; 6-ft. mirror-centre dispensing-screen, £5 10s.; 2-ft. perfume-case and desk, 50s.; 12-ft. range of pine drug-drawers, gold-labelled, £6; 12-ft. ditto mahogany, with bevelled-glass labels, £8 10s.; 137 gold-labelled rounds, syrup bottles, and pink jars, 90s.; good 8 ft. 6 in. counter, 42s. 6d.; upright mahogany counter-case, 36 x 36, 32s. 6d. **R. TOMLINSON & SONS**, Headquarters for Secondhand Fittings, Bond Street, Birmingham.

CHEMISTS Commencing or Making Alterations.—A large stock of high-class second-hand up-to-date Chemists' side-fittings, drawers, shelving and cornice, wall-cases, dispensing-screens, window-enclosures, and glass shelves, glass fascias, stall plates and signs; bargains. Mills, Chemists' Complete Shop Fitter and Shop-front Builder, Steam Works, 163-165 Old Street, London, E.O.

Coming Events.

Notices for insertion under this heading should be received by the Editor on Wednesday of each week.

Monday, October 2.

Leamington Chemists' Association, Church House, Church Street, at 8.45 P.M. Monthly meeting and exhibition of marine algae by Mr. C. Fielding (Halifax).

Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, W.C., at 3 P.M. Presentation of the Hanbury Gold Medal by the President, and inaugural sessional address by Sir Boverton Redwood.

Exeter Association of Chemists and Druggists, 14 Blackall Road (Mr. David Reid's), at 8.30 P.M. Parliamentary representation will be discussed.

Tuesday, October 3.

Bradford Chemists' Association, Royal Hotel, at 9 P.M. Discussion, introduced by the President (Mr. R. H. Marshall), on "Uniformity of Practice in Retailing of Poisons." Private meeting.

Wednesday, October 4.

Society of Chemist-Opticians, St. Bride Institute, Ludgate Circus, E.C., at 3.30 P.M. Council-meeting.

Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, W.C., at 11 A.M. Council-meeting.

Stockport Chemists' Association, Albert Hall, Wellington Street, at 9 P.M. First meeting of the session.

Thursday, October 5.

Great Yarmouth Pharmaceutical Association, 156 King Street, at 8 P.M. Monthly meeting.

THE ANNUAL DINNER of the Manchester Pharmaceutical Association is to be held on October 11, at the Grand Hotel, Aytoun Street. Tickets, 4s. 6d. each, can be had from the local wholesale houses, or from Mr. J. C. Kidd, Hon. Secretary, 551 Cheetham Hill Road, Manchester.

THE INAUGURAL GENERAL MEETING of the Institute of Ophthalmic Opticians will be held on October 11, when Dr. G. Lindsay-Johnson, M.A., M.D., will give a lecture on "Some Results of Eight Years' Work on the Eyes of Animals." Tickets (gratis) may be had from the Hon. Secretary, Mr. Lionel Laurance, 21 John Street, Bedford Row, W.C.

An Assistant's Experience.

How I Became a F.S.M.C.

THE advent of autumn heralds the approach of another session and the time of year when the wise man gathers to himself that increased knowledge which, more than anything else, will enable him to weather the storms of his business-career. Thinking it may interest fellow-assistants and others who are contemplating the study of optics, I write a short account of the method by which a good store of optical knowledge may be obtained, and the qualifying examinations of the Spectacle-makers' Company be passed, at a low cost. Particulars of the examination have been so frequently given in this journal that it is unnecessary to repeat them here.

I may state that the Special and General Examinations are usually taken together. By the efforts of the Society of Chemist-Opticians, the holder of the Minor certificate is excused certain portions of the Special examination—viz., the whole of the mathematical section, heat, and the written paper in light—the Major man being excused the whole of this examination.

Should the student be within reach of London, I would strongly recommend him to take up the evening classes at the Northampton Institute, Clerkenwell, there being a special course for the S.M.C. examinations. The full course at the Institute consists of five classes per week, for the whole or part of which the fee is 15s. for non-members. Having only one evening a week I chose the visual optics and optical laboratory classes, both of which were held on Wednesday evening. This was in September 1903, but during the previous summer I had worked through the first three books mentioned below. Dr. Taylor's lectures on visual optics were very highly spoken of by all who heard them, and embraced the whole of Sections *d* and *e* of the General examination. Work in the optical laboratory included all the practical work necessary for the Special and General

examinations; there is a large collection of apparatus there, and with each instrument are full instructions for its use. Having only 1½ hour per week for laboratory work, I was careful to occupy my time at the Institute in doing such work as I could not do at home. There I learnt the use of the sextant, goniometer, spherometer, and other instruments of which a knowledge is necessary. Optical-bench work took up a good deal of time, but time was saved by leaving calculations for home work. At home, also, I studied the easier parts of Section *f*, such as neutralisation of lenses and prisms, frame measurement and fitting, etc.; for this an Orthos rule (4s.) was used, but, having access to a trial-case, it was unnecessary to purchase this piece of apparatus.

In connection with the practical work I found Dr. Silvanus Thompson's book, "Optical Tables and Data," invaluable; this is a book to be studied, and a thorough knowledge of it is necessary for success. Other books used were "Refraction of the Eye," Hartridge (5s.); "Optician's Handbook" (3s. 6d.); "Light and Heat," Jones; "Key to Sight-testing," Taylor and Baxter (7s. 6d.); "Ophthalmic Science and Practice," Juler; "Diseases of the Eye," Nettleship; "Photographic Lenses," Beck (1s.); and "Drawing, Optical, and Surveying Instruments," Heather (1s. 6d. per part). This last book is the one recommended by the Company for Section *c*, but as rather a deeper knowledge of the microscope seems to be required, I would recommend the student to obtain also "The Microscope" published by Gage.

At the end of the session an examination was held for the prizes presented by the Spectacle-makers' Company, and I was fortunate in being bracketed first, obtaining as a prize two books of my own choice. In November 1904 the above two examinations for the diploma were successfully negotiated.

To prepare for the Sight-testing examination I again attended the Northampton Institute (session 1904-5), where suitable classes are held (fee 15s.). For this examination a good deal of practice is necessary, especially in subjective methods. There are very complete arrangements at the Institute for sight-testing, there being several dark-rooms for retinoscopy, a Geneva retinoscope, an ophthalmometer, and a perimeter, besides smaller apparatus, so that one can obtain a good knowledge of the instruments used in objective testing. Retinoscopy I practised at home with a cardboard eye (4s. 6d.), using a plane mirror (1s. 9d.).

In May last I was successful in passing my Sight-testing examination, the last of the series. As to books for this examination, besides those mentioned above I used Tscherning's "Physiologic Optics" (10s. 6d.) and Hirschfeld's "Charts of the Eye" (4s.). I copied most of the drawings of the eye, besides helping to dissect several real ones.

In conclusion, I may say that, although the work was hard, and entailed giving up my half-holiday every week for two winters, I have never regretted it, and can only urge my brother chemists to go and do likewise, as optics is a science for which the registered chemist is, by his training, peculiarly fitted, and one he will find both profitable and interesting.

P. T. T. (55/46.)

CAKES for making of SHINING LIQUID BLACKING for SHOES, BOOTS, etc.—THESE CAKES make, by the addition of Water only, a most excellent SHINING LIQUID BLACKING, much superior to any hitherto known: It makes the finest black, and most beautiful gloss to the Leather, yet never renders it stiff or hard, but, on the contrary, prevents its cracking, and preserves it soft and pliable to the very last, whereby it is rendered more agreeable to the Wearer, as well as much more durable; and the Shoes that are blacked with it will neither soil the fingers in putting on, nor the stockings in wearing. Sold wholesale and retail only by Bayley & Lowe, Perfumers, in Cockspur Street, London. Price 6d. each Cake. The Patentee intreats all persons, who are curious in Blacking, to take the trouble of seeing that the Cakes bought for their use have a label pasted on them, with the following inscription: By THE KING'S PATENT, Cakes for Shining Liquid Blacking, prepared by WILLIAM BAYLEY, Cockspur Street, London. He having discovered that their great reputation has occasioned many people to counterfeit them, and impose on the Public, he hopes this caution will be attended to?—Advertisement from "The London Chronicle," August 14-16, 1787, which is the oldest reference to cake blacking we have seen.

Electrical Exhibition.

OLYMPIA IN LONDON was opened on Monday for the display of electrical appliances. At two o'clock the Lord Mayor, "in State," formally opened the Exhibition, but when our representative visited the show on that day it was in the chaotic condition so common to opening days that the visit had to be repeated on Wednesday. Then matters were more in order. The Exhibition is to remain open until October 21. It is a good show, electric lighting and domestic electric appliances being particularly notable; but there is everything in the electric line in it, from a bell-push to a giant dynamo. The catalogue has an introduction written by Mr. K. R. Swan from material supplied by Sir Joseph Wilson Swan. This is largely historical, but the progress in the science since 1880 and electro-chemistry are specially dealt with. Those of our readers who have a few hours to spare will find something of interest and profit by paying the Exhibition a visit. We mention a few of the exhibits which are specially worth their attention.

F. Darton & Co. show side-lines such as small electro-motors and models to be driven by them. A particularly good type is the "Ironclad" which is completely enclosed, and can be used for light work, *e.g.*, working window-signs, etc. The firm are now placing two cheap coils on the market. These give quite enough shock for two or three persons.

Ozonair, Ltd., exhibit apparatus for the electrical production of ozone for such purposes as ventilation, disinfection, and bleaching. This is a reasonable attempt to solve a problem which has had many workers, and some idea of Ozonair's success is given in the fact that the apparatus is used for ventilating the hall.

Robertson Electric Light, Ltd., have an interesting exhibit, at which one may see the process for the production of incandescent electric lamps; the filament is cemented to platinum wires and sealed in the glass bulbs, which are then exhausted and sealed up. Then they are "capped" with brass caps, and are ready for use.

A very bright light for window-lighting, etc., is the mercury-vapour lamp shown by Rumney & Rumney. A small incandescent lamp is inserted in the circuit to provide the red rays which are entirely absent in the mercury-vapour lamp.

The Efandem Co. show their "Wireless" sign, which is constructed so that any letter may be inserted and the wording of the sign changed. The letters are lit by small incandescent lamps, which may be obtained in many different shapes and colours.

The Hunter Electric-candle Lamp Co. show their "Huntalite," which is a very good electric imitation of the ordinary candle.

The General Electric Co. exhibit many types of telephones and batteries, also bells, fire-alarms, burglar-alarms, electric heating-apparatus—in fact, they say they can supply everything from a bell-push to a central-station equipment.

The electric furnace shown by Marryatt & Place is a great attraction, for it is shown in action, smelting scrap-metal.

The Chameleon Signs, Ltd., show numerous electric shop-signs which constantly change colour, and are now familiar to chemists.

Siemens Bros., Ltd., have a fine exhibit of motors and controllers. The novelty here is the new Tantalum lamp, the filament of which is a wire of tantalum, of exceptional length on account of the low resistance of the metal.

The Morgan Crucible Co., Ltd., make a good show of Morganite brushes for motors and dynamos, which are an interesting modern development of an old-established industry.

These are but a few of the many exhibits. Every inch of space available in the enormous hall is used by firms of all nationalities.

ALCHEMY UP TO DATE.—M. Abel Haatan's work, "Contributions to the Study of Alchemy, Theoretical and Practical," is an attempt to reply to the critics of the ancient art and to bring it into line with modern scientific ideas. He exposes with a good deal of erudition the alchemic theory of the universe, which M. Berthelot opined is "quite as plausible as the most celebrated modern theories."

Australasian News.

Communicated by the Australian Staff of "The Chemist and Druggist."

The fullest information regarding the Australasian drug-trade and pharmacy is given in "The Chemist and Druggist of Australasia," a journal established by the proprietors of this journal, and published in Melbourne, Vic. Copies of the monthly issue can be obtained at 6d. each, post free, from the office of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of the following, among other, societies:

Central Pharmaceutical Association, N.Z.
Canterbury (N.Z.) Pharmaceutical Association.
Otago Pharmaceutical Association, N.Z.
Pharmaceutical Society of New South Wales.
Pharmaceutical Society of Queensland.
Pharmaceutical Society of South Australia.
Pharmaceutical Society of Tasmania.
Pharmaceutical Society of Western Australia.

New South Wales.

PHARMACEUTICAL SOCIETY OF NEW SOUTH WALES.—The monthly meeting of Council was held on August 15, when it was resolved that a dinner should take the place of the usual monthly lecture for September, and that arrangements should be made for the chemists' annual cricket match. The question of the ownership of prescriptions was further discussed. The British Medical Association have been communicated with but have not so far replied. It was suggested that the chemist could give a copy of the prescription to the patient after dispensing it and retain the original. It was pointed out that the prescription is the only safeguard the chemist has if a question should arise as to the accuracy of the dispensing.

New Zealand.

THE CENTRAL PHARMACEUTICAL ASSOCIATION OF NEW ZEALAND held its monthly meeting at Wellington on August 10. Besides some formal business the principal matter for consideration was a proposal to communicate with the Parliamentary representatives of the district pointing out the advisability of placing in the Shops and Offices Act a clause to enforce a weekly half-holiday for chemists, with a provision that the shop be reopened for two hours in the evening.

THE PHARMACY BOARD of New Zealand met on August 8. As mentioned recently Mr. T. A. Crawford resigned from his position as representative of the Auckland Province on the Board. Mr. Charles Ratjen was elected in his place. Mr. Graves Aickin, another of the senior members for the Auckland district, sent in his resignation immediately on the resignation of Mr. Crawford, then withdrew it, and on the election of Mr. Ratjen sent it in again. Mr. P. M. Mackay, who came second in the previous election, was the only nomination for this vacancy, and he was declared elected. Thereupon Mr. H. N. Garland, the Deputy Registrar of Auckland, forwarded his resignation, stating that he desired the new Board members should have a free hand. Mr. Frank Herbert Exon, formerly of Clacton-on-Sea, now of Auckland, was registered with four men who had qualified by examination.

South Australia.

THE PHARMACEUTICAL CONFERENCE.—The Pharmaceutical Society of South Australia is taking energetic action to make the Pharmaceutical Conference known. Circulars have been issued to the various Pharmacy Boards and Societies, and these mention various subjects for discussion—namely, "Relation of the Pharmacist to the Physician," "Relation of the Physician to the Pharmacist," "Business Methods and Specimens," "Home-made Pharmaceuticals," "Relation of Physician, Pharmacist, and Manufacturer," "Pharmaceutical Advertising," "Running a Proprietary," "The Pharmaceutical Student and the Best Way to Train Him," "Poison Legislation," "Proprietary Articles Trade Association," "Pharmacist and Storekeeper." Suggestions of other subjects for discussion or of papers are asked for. It is suggested that visitors should become members of the Australasian Association for the Advancement of Science in order to gain the many social and scientific privileges which this will yield.

Exchange Column—Bargains.

TERMS.

One halfpenny per word with name and address. One penny per word if we register the address and attach a number.

No Advertisement inserted for less than 6d.

Remittances payable to **EDWARD HALSE**, and crossed **MARTIN'S BANK, LIMITED**.

FOR DISPOSAL.

APPARATUS.

Cohen's medical battery and accessories in mahogany case, excellent condition, just re-charged; cost £10; offers. SMITH, Square, Leominster.

BOOKS AND PERIODICALS.

Minor books, cheap; Wilts. Attfield, &c. "Optician," 17 Tennyson Road, Weston, Bath.

"Chemist and Druggist," last 12 years, clean, 5s. all. WALDEN, Chemist, Gorey, Jersey.

Pharmaceutical Formulas, clean and very good condition; what offers? DRING, Chemist, Teignmouth.

Best offers? B. P., interleaved, with notes, good as new. Chemistry: Attfield's, Muter's, Woodward's Arithmetical, Ince's Grammar. Botany: Green's, vol. i.; Vine's, Oliver's, Edmund's. Materia Medica: Maish's, Will's, Helbing's, Stewart's; Heat, Light, Electricity, 3 vols. Microscopy: Cross and Cole's, Squire's "Methods and Formulae"; Wood's "Objects," Procter's "Practical Pharmacy"; "Art of Dispensing," and Thompson's "Practical." MILLER, Anstey Alton, Hants.

DRUGS AND CHEMICALS

1 lb. iodoform, xl., 18s. 6d.; 1 lb. pot. iodid., 13s.; 6½ lb. ol. succini rect., 1s. lb.; 13 lbs. zinc ox., 4d. lb.; 3 oz. croci stig. 1s. 9d. oz.; 3 lbs. ess. limonis super, 2s. lb.; 8 3-pint enam. douche-cans, fittings complete, as new, 1s. 6d. each; about 15 gross of blue pyrogallie btlis. (Schering's), clean, 6s. gross. STAVENS, Chemist, 97 Borough High Street, S.E.

OPTICAL AND PHOTOGRAPHIC

£4 4s. R.R. hand-camera, 3 slides, ½-plate, 35s.; ½-plate stand camera, slide, stand, 37s. 6d.; both Lonsdale's. PARK, Broughty Ferry.

Offered.—Spectacles and folders (Lawrence's), spare lenses and frames; 25 per cent. off cost price to immediate buyer of whole (about £18 worth). Apply, 175/2, Office of this Paper.

PROPRIETARY ARTICLES.

Two 2s. 6d. coxin; 3 1s. coxin; 6 100 Rotox post-cards; 1 10×8 Imperial plates (ordinary); 1 whole plates, Imperial S.R.; 10 doz. 2d. Kellenzo; 1 1s. Barrett's mandrake embro.; 1 1s. Saddle's embro.; 2 1s. 1½d. Omega oil; 1 1s. 1½d. Lincol embro.; 2 1s. 6d. Savory & Moore's pep. milk and cocoa; 4 1s. Day & Sons' red drinks; all are new and in best condition; will take half price, carriage forward, or exchange saleable patents. MASON, Oakham.

SHOP FITTINGS

Showstand, as Maw's Fig. 2463, new condition, 15s. PHILP, Chemist, Durf. nline, Fife.

Sale.—Snow-jar (1460 Maw), gilt Phoenix lettering, "Magnesia." ORISHOLM, Killamarsh, near Sheffield.

Bargains in shop-fittings and utensils; refer last week's C. & D. Supplement. PERCIVAL, 171 High Street, Walthamstow.

Complete set of chemist's fittings for sale in fair condition; to be sold at once a great bargain; £15 or offer. Apply, "CHEMIST," 57 Russell Square, W.O.

Show-jars, carboys, glass cases, all shop-rounds, ointment-jars, pill-machine, pestles and mortars; no reasonable offer refused. Seen, OLARKSON, 1 St. Ann's Road, Notting Hill, W.

One doz. 2 lb., 1 doz. ½ lb. olive green ointment-jars, 4 1-lb. glass junbe-jars; gold labelled; 1 label-drawer and cash-till. CHEMIST, 21 Topsham Road, West Smethwick, Birmingham.

Range of drug drawers and cupboards 23 feet long in two portions, 54 drawers, glass labels and glass knobs, in good condition, and easily adaptable to any pharmacy; also serving counter with well-partitioned drawers. "CHEMIST," 10 Bridge Street, St. Helens.

Fittings of pharmacy, together or separate, including 2 ranges of mahogany drawers, lockers under; brass knobs, 36 small, 24 large; others, 18 small, 12 large, price 70s. and 40s.; window enclosure; counters, 6 ft. × 3 ft. at end, £4; dispensing-screen, nearly as Maw's, 2,719, £7; desk and case as Maw's 2,725, £2; case as 2,749, 30s.; also shop bottles and jars, &c.; seen by appointment. Tupholme, Earl's Court, London; no reasonable offer refused.

SHARES.

Shares for Sale.—See p. 83.

MISCELLANEOUS.

3 cases Arabella water, all new; what offers? STOKES & SON, LTD., Chemists, Plymouth.

Overstocked.—A few cwt. Kegs genuine patent dryers, sample, carriage forward at 9s. HEATON, Ripley, Derby.

24-in. Barstow's patent combination water-filter, 22s. 6d.; 1d. slot scent-machine, 15s. THORNBURN, Erdington.

Typewriter (Yost pattern), splendid machine, perfect working order; £8 10s. cash. H. & Co., 127 Fenchurch Street, E.O.

Vulcaniser for sale, gunmetal boiler, carries three flasks, gauge; all complete, 27s. 6d. Apply 71/04, Office of this Paper.

National cash register, perfect condition, equal to new, total adder, and with sales printer; list price 45 guineas; what offers? 168/38, Office of this Paper.

Overstocked.—18 Mellin's, 2s. 6d.; 2 doz. Keene's corn; doz. 6d. arsenical soap, perfect condition; offers or exchange. 175/37, Office of this Paper.

Mahogany reclining-couch, any position, new condition, 25s.; medicated vapour bath, with blanket complete, equal to new, 19s. 6d. 113 Turnpike Lane, Hornsey.

Bargains.—25-gallon earthenware-lined water-bath; also one smaller; shop gas-stove; £15 15s. tablet-machine; emulsifier (arch-medium). Stamped envelope for particulars, PERCIVAL, 171 High Street, Walthamstow.

½ doz. breast-relievers for 7s. 6d.; ½ doz. bottle enemas, 8 oz. size, 6s.; ½ doz. injection bottles, 4 oz. size, green or black, brass bound, best quality, English, 5s. 3d.; 1 water-bed, 36 by 36, 25s.; 1 ditto, 30 by 24, 13s. CHEMIST, 5 Salford, Blackburn.

Cheap to Clear.—4 40-gal. malleable iron oil-drums, with brass taps; 1 80-gal. ditto, with graduated tube; 4 pear-shaped carboys and stands (1 2½, 3, 4 gals.); 2 1-gal. show-jars; 1 2-gal. ditto; 1 air-cushion, horse-shoe shape, 23 × 18; mahogany stained wall-case, 6 ft. long, 3 ft. high, 6 in. deep. Offers to J. E. MATTHEW, Hoyland, Yorks.

Retiring from Retail.—What offers for 1,000 16-inch unsprung loofahs; 2 pairs new dental forceps; 10 doz. assorted shop rounds and contents; 10 4 lb. blue ointment jars, all nearly new; Kent's 17 × 13 3 glass-shelved mahogany tooth-brush case; 5 2-lb. domed-top cachou bottles, very handsome labels; retort stand; Avery's squat counter scales, cost 96s.; cork press; handsome 6-positioned show-stand; 1 doz. glass syringes. DOBSON, Chemist, Leicester.

WANTED.

6-ft. bent-glass counter-case; 6-ft. to 6 ft. 6 in. wall-case. GERRING, New Romney.

Old artificial teeth bought; cash by return post. DENT, 3 Hinckley Road, Leicester.

No. 3a F.P.K. or No. 4 cartridge Kodak, new pattern. Lowest price to FARROW, Old Brompton.

Minor, Major, Chemists' books, for cash or exchange. GOWER, Book-seller, Waterloo, Liverpool.

Two specie-jars, about 30 inches; good condition. "CHEMIST," Hoggs, Hunter's Square, Edinburgh.

Arnold's "Veterinary Catalogue," latest edition. State price, RAINE, 53 Sotheby Road, Highbury, London.

Secondhand.—Books on dentistry, dental surgery, and mechanics. Lowest price to 172/6, Office of this Paper.

One or more 11s. bottles Churchill's Spirene. State lowest price to MARPLES, Chemist, 5 Berry Street, Liverpool.

Entire fittings for Chemist's shop, in Sheffield district. Prices and full particulars, carriage paid, to CHAMBERS, Thorne Oroft, Goole, Yorks.

Student's set bones; Ounningham's "Anatomy"; Haliburton's "Physiology." J. ARTHUR R. LEE, Pharmaceutical Chemist, Doncaster Road, Mexbro'.